

For Reference

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS



THE UNIVERSITY OF ALBERTA
THE AREAL SENTIMENTS OF EDMONTON RESIDENTS

BY

ALEXANDER K. LEWONIUK



A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF BUSINESS ADMINISTRATION

FACULTY OF BUSINESS ADMINISTRATION AND COMMERCE

EDMONTON, ALBERTA

SPRING, 1971

1471
21

THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Areal Sentiments of Edmonton Residents" submitted by Alexander K. Lewoniuk in partial fulfilment of the requirements for the degree of Master of Business Administration.

ABSTRACT

Edmonton has experienced rapid population growth in the past and this is expected to continue in the future. This growth has created a substantial demand for suburban housing requiring surrounding areas to be brought into residential land use. The factors which decide in which direction land expansion should take place are complex and any information or decision-making tools that can facilitate dealing with these complexities are of value.

One of the primary decisions in land development concerns the geographic direction in which logical land development should take place. Since there is evidence that a city tends to take on distinct characteristics in each of its directional sectors, which once established are difficult to change, there appears considerable value in establishing an inventory of the prevailing areal sentiments of Edmonton residents so that residential development can be programmed toward the home buying market segment with the highest propensity to accept a specific area. This was the objective of this study.

Factors of cognition and perception as well as the nature of Edmonton's environment and its people were found to play a role in the generation of areal sentiments. Examination of literature in these areas aided understanding but did not reveal the areal sentiments of Edmonton residents.

This necessitated an exploratory study which included a field survey of 332 Edmonton residents. The study revealed that the respondents had high aspirations for private homes and were able to perceive differences in the desirability of the four geographic quadrants of

Edmonton. In order of desirability the respondents ranked the southwest as being most desirable followed in declining order by the northwest, the southeast and the northeast.

Also there appeared to be some evidence of perceptual error becoming involved and manifesting itself in the form of the respondent ranking his present area of residence as being most desirable even if it was not. Some explanations of this phenomenon appeared to lie in cognitive dissonance theory.

General applications of the findings include land marketing, to which this study has been applied with indications of success, civic administration as well as an information source for the consumer.

Further research requirements centre around replication of these exploratory findings, and paralleling research in the identification of the importance of geographic location relative other land development inputs.

ACKNOWLEDGEMENTS

During the course of this study assistance was received from many people. To my supervisor, Professor M. J. Dunn, I wish to convey a sincere expression of appreciation for his direction and advice. To the other members of my committee, Dr. M. D. Stewart and Dr. P. Hugstad, I am grateful for their interest, suggestions and comment for improvement of this manuscript.

Special appreciation is also extended to the management of R. G. Evans and Associates Marketing Agency Ltd., who provided data resources and computing facilities for completing this study; and to the surveyors who assisted in this project.

Finally, I am indebted to Mrs. D. Knopke for typing this manuscript with a good deal of proficiency and interest.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
II. ANALYTICAL FRAMEWORK	8
COGNITION AND PERCEPTION	9
RELATING COGNITION AND PERCEPTION TO AREAL SENTIMENT GENERATION	13
EDMONTON LAND USE PATTERNS	16
EDMONTON DEMOGRAPHIC CHARACTERISTICS	18
SUMMARY	24
III. RESEARCH DESIGN	26
SAMPLE DESIGN	27
SURVEY IMPLEMENTATION	31
IV. ANALYSIS OF DATA	34
RESPONSES TO THE EDMONTON RESIDENTIAL ENVIRONMENT	34
GEOGRAPHIC SECTOR RANKING	39
RELATIONSHIPS AND TRENDS	43
V. SUMMARY AND CONCLUSIONS	51
BIBLIOGRAPHY	59
APPENDIX A	62
APPENDIX B	71

LIST OF TABLES

TABLE	PAGE
1. City of Edmonton 1970 Population Distribution by Census Tracts	27
2. Satisfaction with Present Dwelling	34
3. Dwelling Preference on Next Move	35
4. Private House Style Preference on Next Move	35
5. House Layout Preference on Next Move	36
6. Number of Bedrooms Adequate on Next Move	36
7. Price Range that would be Considered on Next Move	37
8. Responses to Apartment or House Alternatives as a Place to Live	38
9. Significance of Relatives, Friends and Ethnic Groups in a Choice of a Residential Area	39
10. Sector Desirability Rating Response Frequency Total all Groups	40
11. Results of Chi-square Tests Applied to Sector Desirability Rating Frequencies	41
12. Geographic Sector Ranking by Study Group	44
13. Satisfaction with Present Dwellings by Study Group	46
14. Initial Survey Sample Derivation	73
15. Initial Survey Sample Structure	76

LIST OF FIGURES

FIGURE	PAGE
1. Relationships of Cognition and Perception to Areal Sentiment Generation	14
2. Edmonton Geographic Sectors and Estimated 1970 Income per Family	19
3. Edmonton High Density Areas	20
4. Map of Edmonton Showing Census Tracts Surveyed	70
5. Map of Edmonton Showing Census Tracts Surveyed	82

CHAPTER I

INTRODUCTION

Edmonton is the dominant centre of a vast region extending south to the Red Deer River, north to the Arctic islands, east to Lake Athabasca and west to the Western Cordillera. This region is a spatial entity overlapping municipal, provincial and territorial boundaries. Within this region, the City of Edmonton plays a dominant role as a supplier of goods, as a centre of services, as an administrative centre, as a base for operations and as a financial and government centre.

Development of this region has affected Edmonton profoundly by increasing business activity, tourism and population. In the ten year period from 1961 to 1970 the population of Metropolitan Edmonton, as delineated by the Dominion Bureau of Statistics, increased from 338,000 to 438,000 people, an average growth rate of 39% per decade.¹ By 1981 the City of Edmonton population, based on estimates of available birth, death and migration rates, is forecast to reach 620,000 people.²

To accomodate this expected population growth, additional land for residential development will be needed to augment what is presently being used for these purposes. The City of Edmonton Planning Department

¹ Since 1961 Beverly and Jasper Place have been annexed to the City of Edmonton. St. Albert and parts of the Municipal Districts of Strathcona and Stony Plain and the County of Sturgeon form the remainder of the Edmonton metropolitan area. See B. M. Hamilton (ed.), 1970 Survey of Markets (46th ed.; Toronto: Maclean-Hunter Ltd., 1970), pp. 81-83.

² City of Edmonton Planning Department, Amendments to the City of Edmonton General Plan (City Planning Department, June, 1970), p. 5.

states:

It is expected that of the population increase of 197,600 between 1969 and 1981, 132,400 will be accommodated in the outline plan areas, 42,000³ in presently developed areas and 23,200 in existing built-up areas.

From the above, it is apparent that the majority of the new residential development must take place in suburban areas largely in the form of single family dwellings. This has been Edmonton's residential growth pattern since World War II and only since 1961 has a significant trend toward Central Area high density apartments occurred. However, Edmonton like other western cities such as Calgary and Vancouver, is still a low density urban area with two-thirds of the population living in single detached homes compared to only one-half in such larger centres as Toronto and Montreal. By 1981, although declining, low density living is expected to remain the dominant mode accommodating 59% of the Edmonton population.⁴

The direction Edmonton's residential land expansion will take is influenced by many factors. A basic prerequisite to land use planning is knowledge of the physical factors of the area under study. Topography, subsurface geology, vegetation, soil bearing capacity, water pools and streams, drainage, mine workings and microclimatology are some of the more important factors that must be considered.

Secondly, the shape of the urban land use pattern is influenced by the economics of utility extension, the cost of land and the time - distance factor for travel to other parts of the Metropolitan Area.

³ Ibid., p. 7.

⁴ Ibid., p. 8.

Complexly related to these physiographic and economic determinants of land use are those of social origin. Preferences for certain types of residential accommodations or preferences in the location of community facilities such as churches and shopping facilities can differ among communities. An appreciation of local customs, beliefs, traditions and cultural biases is therefore required.

Another force in land use determination is that of public interest. Through legal power from the local and provincial governing agencies, the public should receive protection from accident hazards, disease, noise and pollution. Adequate daylight, sunshine, privacy and opportunities for normal family and community life need to be safeguarded and, finally an aesthetically stimulating environment should be maintained.

In addition to economic, social and community values, the influence of existing development can strongly affect future urban growth and land uses. Thus the location of existing residential, commercial, governmental, recreational and industrial land uses limits the number of choices available for the development of adjacent land. For example, the location of industry can severely restrict the availability of adjacent land to non-industrial uses, particularly those of a residential character.⁵

Given the complex set of factors that determine the direction of residential land expansion, it becomes useful for private firms or public agencies involved in land development in Edmonton to develop tools for reducing the complexity of the decision-making involved. From the land

⁵ City of Edmonton Planning Department, General Plan (City of Edmonton, 1967), p. 40.

developer's point of view, the general problem is one of estimating the type of suburban environment that will attract home buyers, and in Edmonton where virtually 360 degrees of land is available, one of the first decisions to be made concerns the geographic direction in which profitable expansion can take place.

There is evidence that a city through time and consequence develops a certain character in each of its directional sectors. Once this character is set, people develop attitudes, feelings and opinions toward these geographic sectors and this ultimately affects the desirability of the area as a place of residence in the eyes of a buyer.⁶ These attitudes, feelings and opinions can be defined as sentiments, and are extremely difficult to reverse once they are established.⁷

Of utmost importance to the success of a residential development therefore, is its location within the urban area, the manner in which the major thoroughfare routes approach it, and the character of existing and future growth along its routes. For example, the Urban Land Institute states:

A "good address" for medium to high-priced projects is especially important. Such projects should be on the "right side" of town. Fighting long established adverse trends may prove difficult and expensive. In low-cost projects, land costs, convenience to work, schools and shopping are more important factors than a good address.⁸

Since Edmonton has grown to significant size as an urban centre, it is likely that the population is able to differentiate among the de-

⁶ J. R. McKeever (ed.), The Community Builders Handbook (5th ed.; Washington: Urban Land Institute, 1968), p. 33.

⁷ Ibid., p. 34.

⁸ Ibid., p. 33.

sirability of its various geographic sectors. Land developers therefore have had to deal with this problem during the recent years of the city's growth. However, it appears that the assessment of situation and solutions have come largely from the intuition or previous experience of the developer or observation of similar or related precedents in Edmonton and other cities.⁹

In addition to the difficulty of identifying the prevailing sentiments relative to a geographic area, a private firm or the civic administration of Edmonton, generally has limited resources to manipulate the character of a geographic sector, and this increases the importance of understanding home buyer attitudes prior to land development.

Given this situation, there appears to be considerable value developing an inventory of prevailing areal sentiments of Edmonton residents so that residential development can be directed toward the home buyers that have the highest propensity to accent a specific geographic sector.

Urban and metropolitan researchers have recognized the need for work in this area for some time. As early as 1953 the Scripps Foundation for Research in Population Problems noted:

One aspect of city structure which so far has been largely ignored is the attitude of city residents themselves toward the conditions imposed by present urban patterns. The planners who lay out redevelopment projects do not know how the residents they are displacing, or how those they are planning to bring in to the redevelopment area, feel about their position in the city. Although scientific instruments for determining these facts exist, there is little research being done. In many respects, the desirable patterns of a city can-

⁹ Private communication regarding this matter took place with five major private land developers and the City of Edmonton Planning Department in November, 1970.

not be known until people's attitudes are known.¹⁰

Recognizing the need for research into the attitudes the Edmonton population has about its city, the primary objective of this study is to identify the prevailing areal sentiments held by the Edmonton population. Special emphasis is put on identification of how the city's geographic sectors of northeast, northwest, southeast and southwest, rate as to desirability as a place of residence, and several hypotheses are evoked regarding Edmonton areal sentiments.

It will be seen that secondary data specific to Edmonton areal sentiments is limited requiring original field surveys to be conducted. This results in a study that is exploratory in nature.

Although research specific to Edmonton areal sentiments is limited, work done by other researchers on the subject of urban and suburban living provides insights into the dynamics of urban growth and the psychological and cultural attributes of its population. This data combined with the available knowledge as to the nature of cognition and perception allows insights as to how the prevailing Edmonton areal sentiments manifest themselves.

The findings of this study generally show that the Edmonton population perceives a difference in the desirability of Edmonton geographic sectors as a place of residence and that the rank order of sector desirability changes among population groups.

As to the balance of this thesis, current literature on the

¹⁰ Donald J. Bogue (ed.), Needed Urban and Metropolitan Research (Scripps Foundation; Oxford Ohio: Miami University, 1953), p. 13.

dynamics of urban growth and the nature of cognition and perception is examined in Chapter II. This examination leads to several questions that are explored further through a survey of 332 Edmonton residents in November, 1970, detailed in Chapter III.. Analysis of the survey data is covered in Chapter IV and this thesis concludes in Chapter V by identifying the areal sentiments of the Edmonton population, suggesting some application of these findings and outlining some areas of further research requirements.

CHAPTER II

ANALYTICAL FRAMEWORK

Central to understanding the nature of sentiments, are the elements of cognition and perception. W.F. Whyte in his work on organizational behaviour sees sentiments as synonymous with attitudes and having three elements.¹

The first is an idea about somebody or something, that is, a cognitive element. Secondly, an emotional content or effect and finally, a tendency to recur upon presentation of the same symbols that have been associated with it in the past. Sentiments in Whyte's view become a frame of reference for interpreting the world around a person and tend to cluster in various groups. Some important groups are those relating to a person's judgement of his personal worth, of what is right or wrong, about who are his friends and the relative prestige of those he sees around him. Whyte further states that a person develops his sentiments by interpreting cues or symbols such as words, objects, conditions, acts or characteristics of persons.

Given this description of sentiments, the understanding of Edmonton areal sentiments can be facilitated through examination of a theoretical model of how cognition and perception lead to the manifestation of sentiments and then by relating the theoretical model to the Edmonton situation.

¹ William F. Whyte, Organizational Behaviour (Homewood: Richard D. Irwin Inc., 1969), pp. 128-46.

COGNITION AND PERCEPTION

In constructing a descriptive model of how cognition and perception leads to the manifestation of sentiments, the work of several authors in the area of human and organization behaviour can be drawn upon.

Berelson and Steiner in their work on human behaviour see first a psychological element to perception.² Man as a living organism by nature requires sensory stimuli and experiences marked deterioration in various capacities if deprived of this stimulus for a significant length of time. Stimuli in their findings are the cues or sensory information that is perceived. There are two important dimensions to stimuli. First is the so-called "absolute threshold" which is the minimum amount of energy that can be identified by the perceiver. Secondly, there is the "differential threshold" which is the minimum amount of difference that can be detected by the perceiver.

Relating this to the Edmonton situation, residents will only perceive and interpret information about the city's geographic sectors if it is of an intensity that can be noticed.

The same need for a significant level of intensity of information applies to differentiating among geographic sectors.

Although sensory information or stimuli are the dynamic forces behind perception, the perceptions they bring forth do not necessarily correspond to the true nature of the stimulus. It appears that sensory information interacts with what is already in the individual. Further-

² Bernard Berelson and Gary A. Steiner, Human Behaviour (Shorter edition, Harcourt, Brace and World Inc., 1967), pp. 141-58.

more, humans tend to select the stimuli they perceive and this occurs not on a random basis, but depends on the nature of stimuli, the specific motives of the perceiver in play at the time, and what the perceiver is prepared to see at the time. This latter concept was illustrated by a study conducted by Kelly and is called "set".³ Kelly found that those who were previously led to expect to meet a "warm" person, not only made different judgements about him, but also behaved differently toward him, than those who were expecting a "cold" one.

The importance of this concept to the Edmonton situation would lie in the fact that if a resident who was not intimately familiar with a certain geographic sector of Edmonton was led to believe from his information sources that it was a certain "type" of area, he would tend to perceive the area in this way once he visited the area or was asked an opinion on it.

The work of Zalkind and Costello provides further insight into how humans will perceive their environment by examining the limitations on ability of the individual to form accurate perceptions.⁴ They say that there are four typical errors in the formulation of accurate perceptions. First, it appears that people assign qualities to other people based on the other person's group membership. This is stereotyping. Secondly, initial impressions either favourable or unfavourable are used to evaluate other traits that are perceived. This can be termed the

³ H. H. Kelly, "The Warm - Cold Variable In First Impressions of Persons," Journal of Personality, XVIII (1950), pp. 218-35.

⁴ Sheldon S. Zalkind and Timothy W. Costello, "Perception: Implications for Administration," Administrative Science Quarterly, VIII (September, 1962), pp. 53-58.

"halo effect". A third error stems from a defense mechanism available to everyone known as "projection" and, in the context of perception, means attributing one's own characteristics to other people. A final error can be termed "perceptual defense" and refers to the process of avoiding seeing new cues that may disturb the existing perceptual balance.

In the context of the Edmonton situation, these perceptual errors could mean an entire geographic sector would be judged by the nature of its access routes or by a few distinct buildings that, although not representative of the entire area, set the tone for an individual's interpretation of the quality of the area. Also an individual, if he is pleased with his own dwelling, may tend to project this satisfaction to the entire geographic area even though circumstances may show that area is in fact not of the standards of the particular dwelling. This same process would apply to negative feelings about a particular dwelling. Finally, an individual who was in the past pleased with his particular place of residence may not allow his feelings to change once the area matures and begins to disintegrate, because to do so would upset his perceptual balance and this would be emotionally uncomfortable.

Continuing on to the factors that generate differences and often errors in perception, the work of Ross Stanger on Union-Management Relations provides some insights.⁵ Stanger reports that perception may be influenced by occupation and income status; group memberships; education and mass communication influences as well as personal experiences and per-

⁵ Ross Stanger, The Psychology of Industrial Conflict (New York: John Wiley & Sons Inc., 1956), pp. 53-58.

sonal motives.

Thus the way Edmonton residents view their city may vary by demographic and socio-economic grouping. Furthermore, an individual's viewpoint may change as his situational variables change.⁶ A young family may find that early in its life cycle the most desirable area in Edmonton is likely to be where new homes are least expensive to buy. At this point the family is home centered and child centered. Few families belong to community organizations so that the most desirable area is anywhere that the family can be together. This initial stage passes shortly and symbols of status reassert themselves. For a time the need for symbols is satiated through purchases of durables, but eventually the attraction of the initial suburb fades and the family plans to move back to the city core or to another area where a more elaborate estate may be obtained to enhance family prestige.

There is evidence that the net result of how a person perceives the world around him, the mental pictures of any place, group, or external situation with which he has experience, become formulated into what is called a "cognitive map". This concept was first developed by E.C. Tolman of the University of California.⁷

This cognitive map then becomes the processing system for new perceptions or cues that an individual receives about persons, situations and issues. Following this, the way in which the individual's cognitive map

⁶ Ernest R. Mowser, "Sequential and Class Variables of the Family in the Suburban Area," Social Forces, XXXX (December, 1961), pp. 108-13.

⁷ Ernest Dichter, Handbook of Consumer Motivations (New York: McGraw Hill Book Co., 1964), p. 401.

or system sorts this information appears to generate attitudes or sentiments towards persons, objects, issues and situations. Finally, attitudes and sentiments decide the behavioural tendencies.

Relating the concept of the cognitive map to the Edmonton residential situation, the perceptions an Edmonton resident has of the various geographic sectors of the city may form a mental "map" of the city. Such a "map" would consist of the relative attractiveness of the geographic sectors, prevailing prices and the "type" of people that live there. From this "map" the individual is able to generate opinions, attitudes or sentiments about each geographic sector, and these feelings or sentiments would play a role in the geographic sector the individual would choose as a place of residence.

These various aspects of cognition and perception relate to the manifestation of sentiments and their interconnectedness can be shown by means of a descriptive model, which follows in the next section.

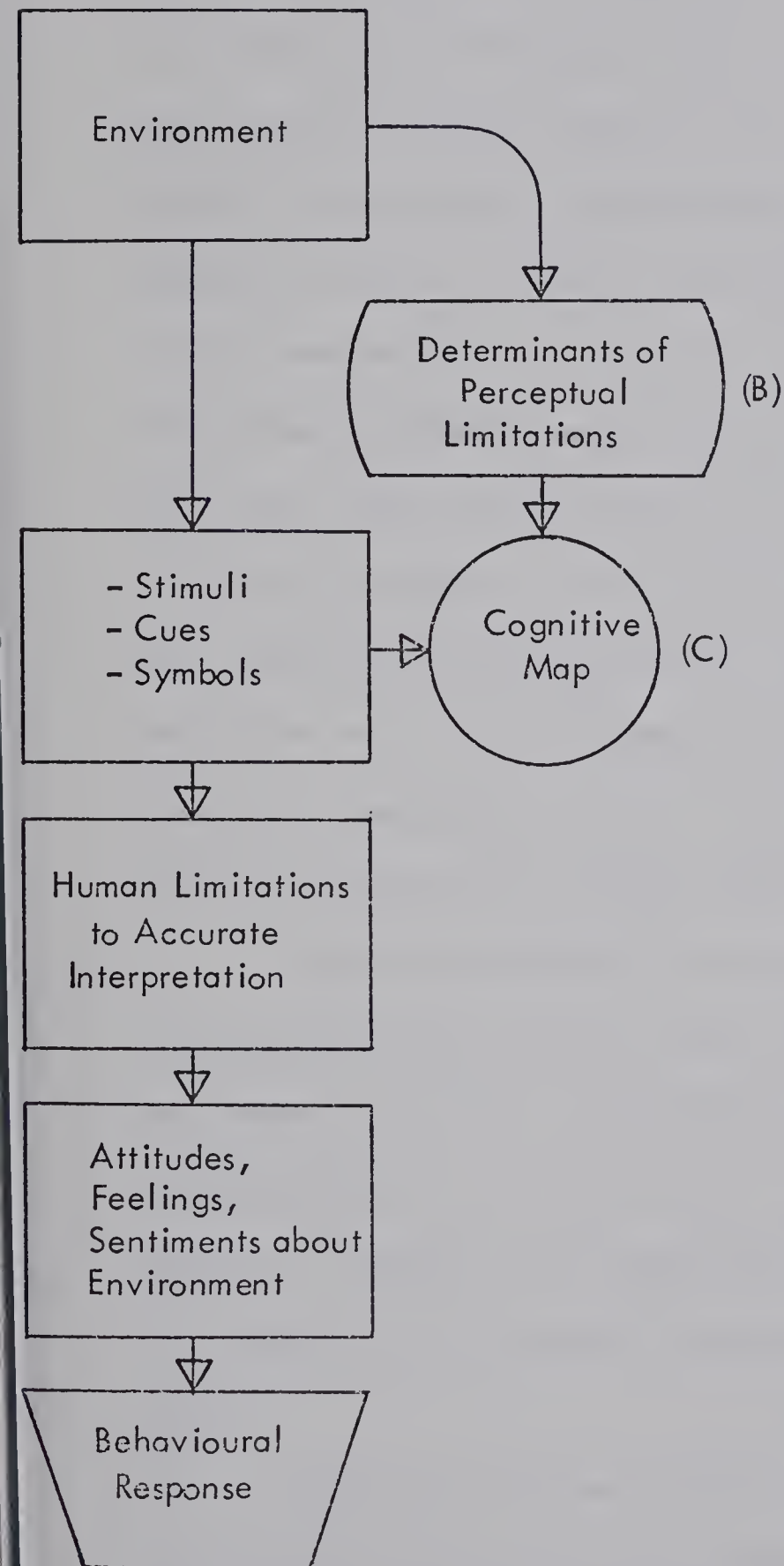
RELATING COGNITION AND PERCEPTION TO AREAL SENTIMENT GENERATION

A useful method of relating the work of the authors discussed to a descriptive model of areal sentiment generation is to view the movement of the stimulus, the dynamic element of perception, from its source in the environment through the interpretive systems of the perceiver and ultimately generating behavioural tendencies. Referring to figure 1, the theoretical model shows stimuli (D), coming from the environment (A), being interpreted by an individual's cognitive network (C), that itself had been influenced by environmental factors (B). The interpreted sti-

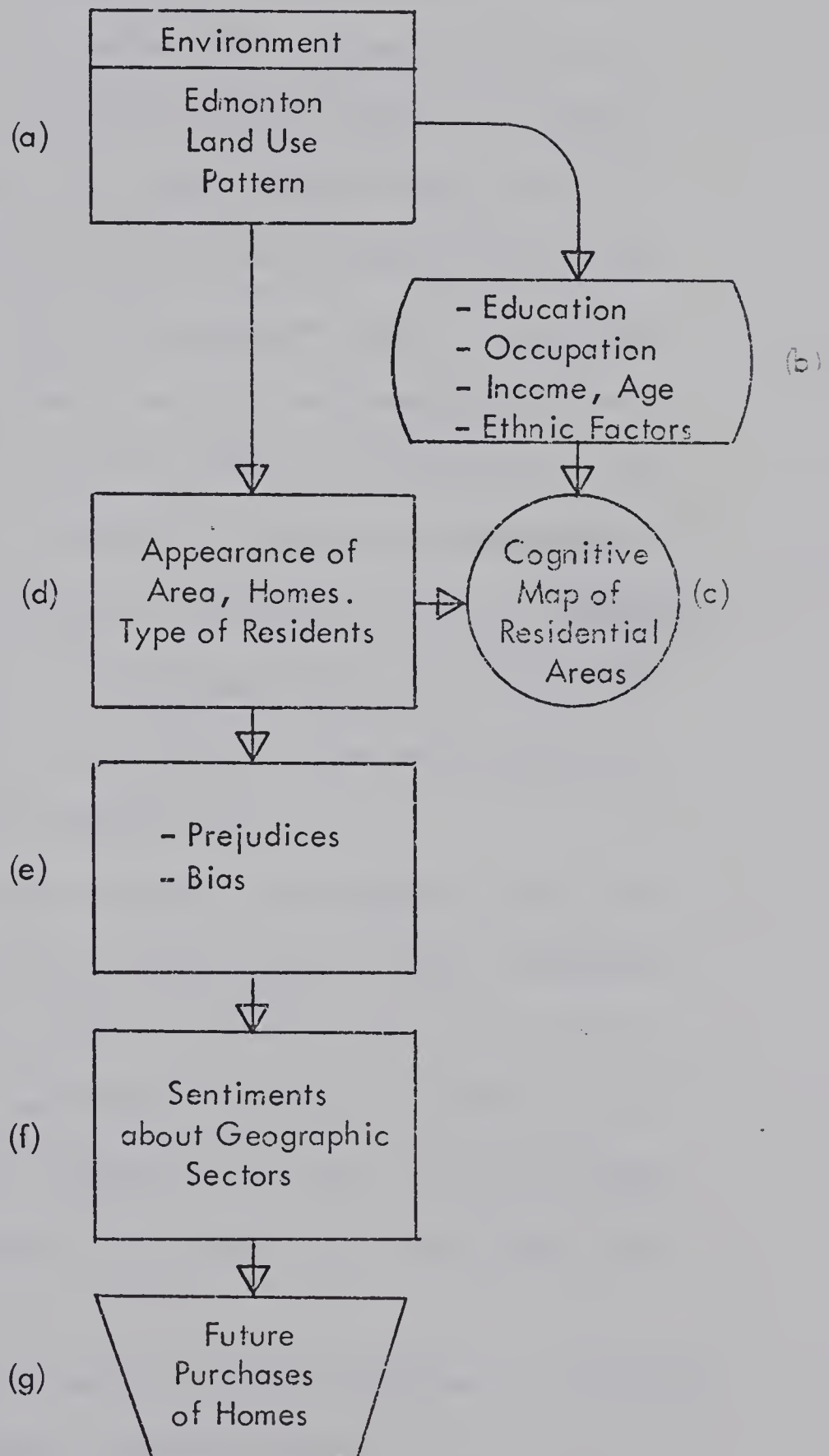
FIGURE 1

RELATIONSHIPS OF COGNITION AND PERCEPTION TO AREAL SENTIMENT GENERATION

Theoretical Model



Edmonton Model



mulus then can take on various erroneous forms (E), but whether erroneous or not, generates distinct attitudes and sentiments (F), which ultimately play a role in determining behavioural response to the environment (G).

Relating this theoretical framework to the generation of areal sentiments about Edmonton, one can speculate that the environment (a), would be the current land use and residential pattern that has certain visual and aesthetic characteristics (d). The characteristics that an Edmonton resident perceives are interpreted by the cognitive map he has of all the residential areas (c), and this cognitive map is to an extent determined by educational, occupational, economic and demographic factors (b), which also had their source in the Edmonton environment. The stimulus interpreted by the Edmonton resident's cognitive map or network may then take various prejudiced, biased or erroneous forms (e). Whether erroneous or not, the interpreted perceptions generate sentiments about Edmonton's geographic sectors (f), and ultimately these sentiments may decide the direction of future home purchases (g).

From the preceding descriptive models, it is apparent that two situational factors play a role in the manifestation of areal sentiments, and these are firstly, the Edmonton land use patterns (a), which are the physical sources of stimuli that the Edmonton residents perceive and interpret. Secondly, the demographic characteristics (b), which influence the ability of the Edmonton residents to interpret the stimuli they perceive.

Secondary data on both of these situational variables is available and they are discussed in the remainder of this chapter.

EDMONTON LAND USE PATTERNS

The understanding of Edmonton's land use patterns can be facilitated through an examination of several generalizations currently advanced as the nature of urban growth tendencies.

One of the earliest descriptions of a city land use pattern was in terms of a series of concentric zones.⁸ At the centre is the central business zone with the retail area at the core and the wholesale and warehouse district at the outer edge. The second zone, surrounding the business district, is a zone of transition of old residences, rooming houses, slums and scattered commercial and light industrial uses. Through this zone and the inner core are found wedges of industrial land use along the railroads and waterfront. The third zone from the centre of this concentric pattern is occupied by workingmen's homes, and in the fourth circular zone are found the residences of middle-class families. A fifth ring is the commuters' zone of suburban communities where middle- and upper-income groups live.

Although this division of the city into concentric zones aids in understanding urban patterns it is limited in its application to the Edmonton situation. There is a tendency for Edmonton to have growth rings but they are not full rings encircling the central core. As can be observed from the map of Edmonton in figure 2, commercial zones and industrial uses interpenetrate one or more rings as they move out along railroad lines.

⁸ Ernest W. Burgess, "The Growth of the City," The City, eds. R.E. Park and others (Chicago: University of Chicago Press, 1925).

Another theory, the multiple-nuclei concept of the city, recognizes that there are a variety of centres about which growth occurs, each centre representing a different urban function.⁹ These functional centres include the central retail area, outlying retail areas, industrial and wholesaling centres, or outlying satellite communities. Again, this theory does not provide a complete description of the pattern of Edmonton growth. Although Edmonton does have areas of similar and related land use, these have not necessarily been the products of parallel urban growth processes. For example, Jasper Place was at one time a satellite residential community which has now coalesced with Edmonton. Furthermore, the multiple-nuclei concept does not portray the organic unity of Edmonton.

Homer Hoyt's sector theory, in its description of patterns of residential development comes nearest to describing Edmonton today.¹⁰ This generalization states that the homes of different income groups are found in separate wedge-shaped areas which are radial to the centre of the city and may extend outward to the edge of settlement. The high-grade residential development begins near the center in the form of deluxe high-rent apartment areas and extends outward along the fastest travel routes or along lake or river front; in other cases, it progresses toward high ground and open country away from barriers to expansion. The low-rent and intermediate-rent sectors occupy less desirable portions of the community

⁹ C. D. Harris and E. L. Ullman, "The Nature of Cities," The Annals, CCXXXII (November, 1945), p. 13.

¹⁰ Homer Hoyt, The Structure and Growth of Residential Neighbourhoods in American Cities (Federal Housing Administration, 1939), p. 76.

but exhibit the same tendency to take the form of sectors extending to the edge of development. Low-quality housing, for example, may follow the outward line of railroad and industrial property.

Referring to the map of Edmonton in figure 2, similarities to Hoyt's description can be observed. For example, it appears that to the northeast will be the lowest income groups, to the northwest and southeast the middle income groups and to the southwest the highest income groups.

Also, referring to the population density map of Edmonton in figure 3, it can be observed that the high density areas, which includes what Hoyt describes as deluxe high-rent apartments, are generally located in the city core. Another factor that tends to support Hoyt's approach in the description of Edmonton is the general tendency for Edmonton residents as well as city planners and land developers to think of Edmonton in a northeast-northwest, southeast-southwest configuration when they describe the city.

Therefore, when attempting to determine the areal sentiments that Edmonton residents develop, it appears reasonable that they would be distinguishable on a four geographic sector basis. Also these same sectors provide a convenient framework for discussing the demographic factors of the Edmonton population.

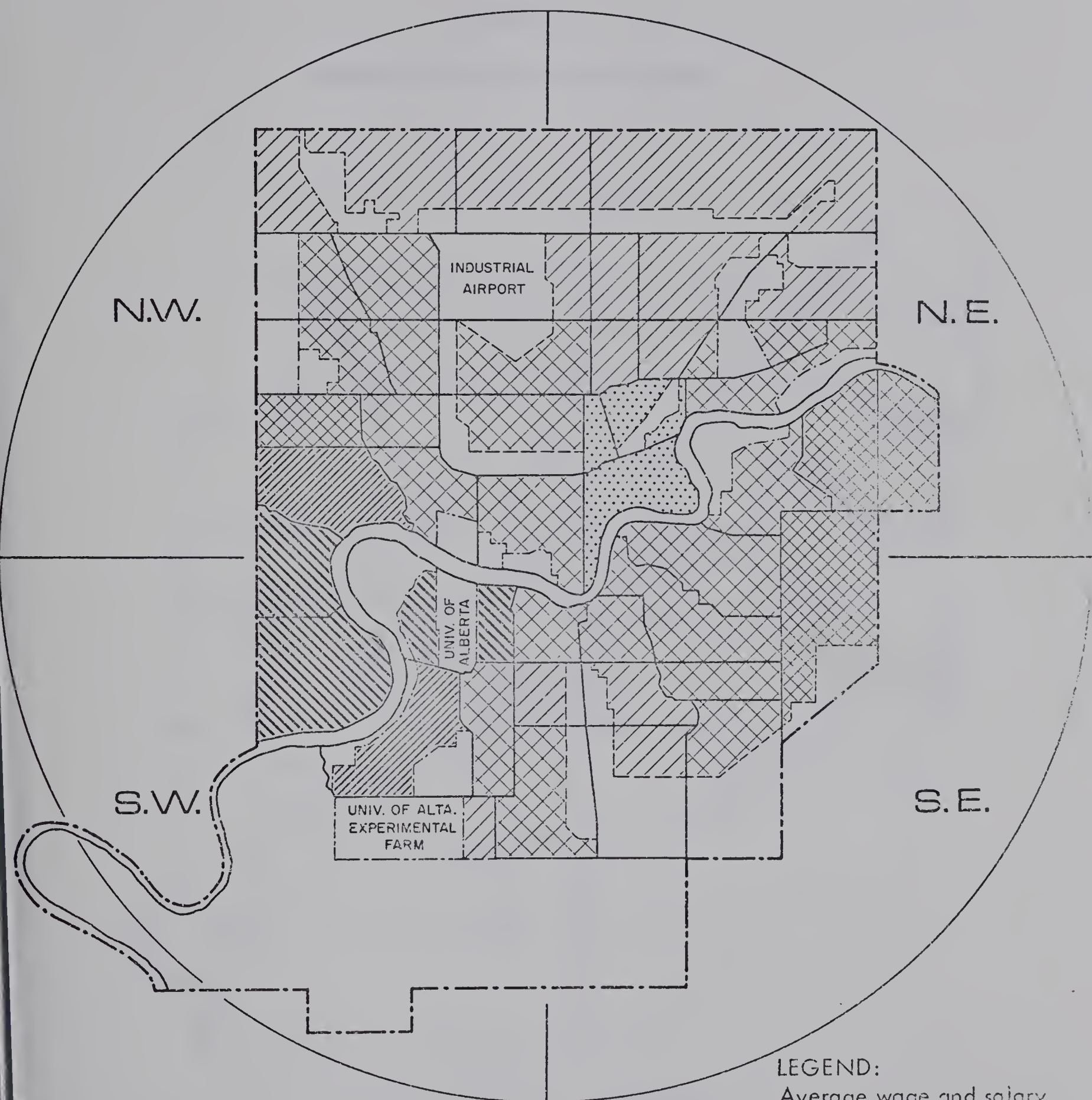
EDMONTON DEMOGRAPHIC CHARACTERISTICS

As indicated earlier, Edmonton has experienced an extremely rapid population growth by comparative standards and can be ranked as Canada's fastest growing major city over the last 20 years. To a significant de-

FIGURE 2

EDMONTON GEOGRAPHIC SECTORS AND ESTIMATED
1970 INCOME PER FAMILY

19



Solid lines delimit the 1961 census tracts of Edmonton.

Dot and dashed lines delimit parks, cemeteries and other relatively large areas of public property.

Dashed lines delimit industrial, railroad and vacant property.

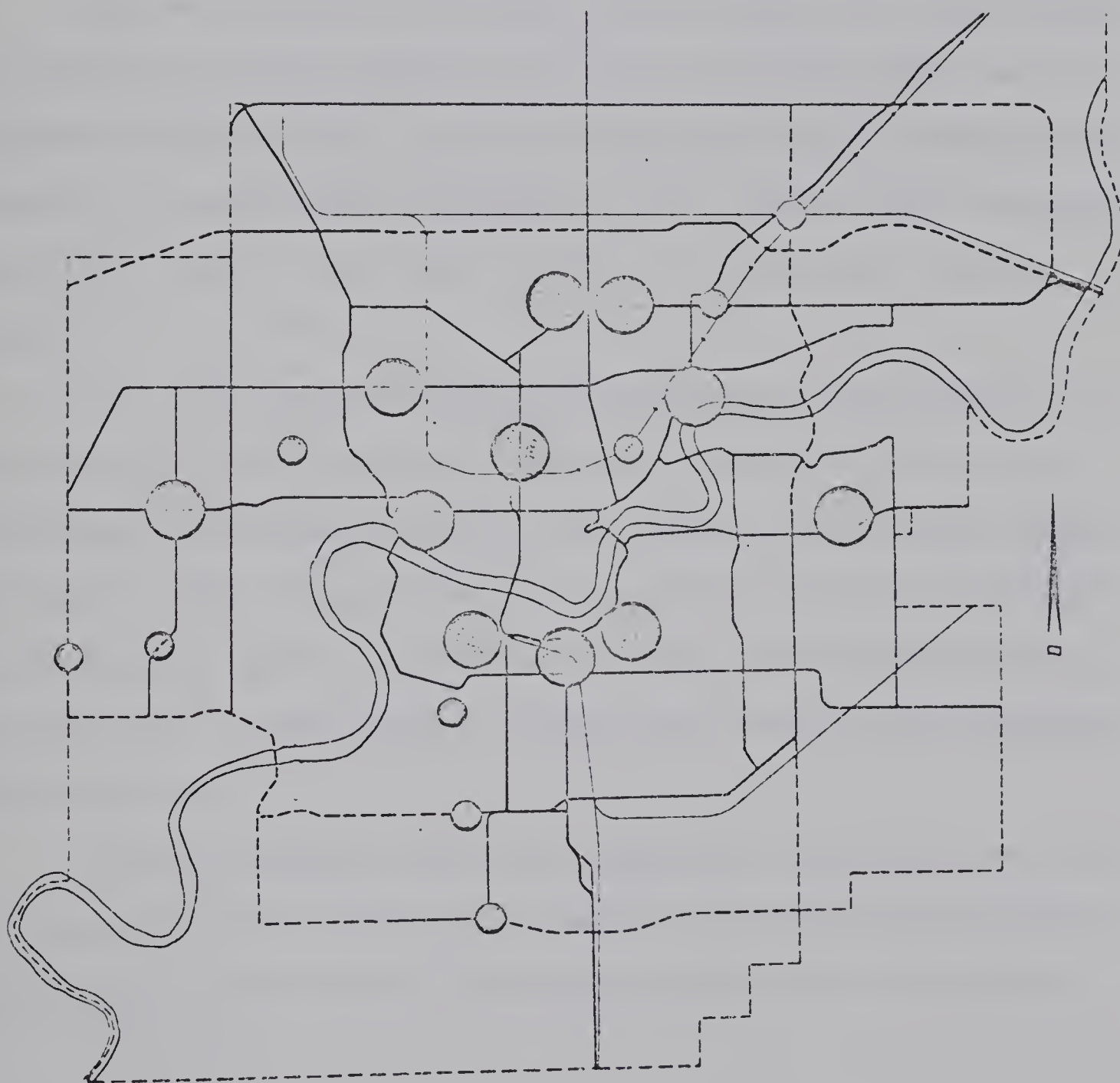
LEGEND:

Average wage and salary income per family in dollars

4,000-4,999	7,000-7,999
5,000-5,999	8,000-8,999
6,000-6,999	9,000 plus

SOURCE: 1961 Census Data Adjusted

FIGURE 3
EDMONTON HIGH DENSITY AREAS



LEGEND:

○ Denotes 1969 Density Areas

SOURCE: City of Edmonton Planning Department

gree, this growth has come from net migration gains. In 1961 the Edmonton population by place of birth was: 57% born in Alberta, 20% in other provinces, 6.5% in the United Kingdom, 13.5% in other European countries, 2.5% in the United States and 0.5% elsewhere.¹¹

This has resulted in a diverse ethnic background of the Metropolitan Edmonton population which at the time of the 1961 census was predominantly English, Irish, Scottish and Welsh (45.8%) with lesser amounts of people of German (12.3%), Ukrainian (11.3%), French (6.7%), Scandinavian (5.3%), Dutch (4.1%), Polish (3.8%) and (10.7%) other ethnic groups.¹²

To a large extent, the foreign-born population has tended to concentrate along a north-south axis immediately east of the city centre. In this area the proportion of the total population born outside Canada was 43.0% in 1961. There is somewhat of a gradient pattern of foreign-born in Edmonton with the proportion decreasing with the distance from the city centre and the smallest concentrations being in the peripheral areas of the city.¹³

It can be observed that recent immigrants reside in areas of the city characterized by instability, transient populations, deteriorated housing, aged populations and low-rental dwelling units. In contrast,

¹¹ City of Edmonton Planning Department, General Plan (City of Edmonton, 1967), p. 30.

¹² Ibid.

¹³ George Kupfer, Edmonton Study (Edmonton: Human Resources Research and Development Executive Council, Government of Alberta, 1967), p. 36.

areas with low proportions of immigrants are located in better residential districts bordering the western corporate city limits.¹⁴

In terms of educational attainment the pattern is similar to the foreign-born spatial distribution. The poorer districts east of the city centre contain the population that has completed the least number of years in school. The areas with the highest level of educational attainment are located in the southwest peripheral area, although this is influenced by University students, staff and faculty residents in this area.¹⁵

Turning to the employment and occupational status of Edmonton's population, the highest proportions of professional and technical workers are located south of the North Saskatchewan River, with the highest concentrations near the University where faculty members and other professional workers tend to live. It can be noted that the highest proportion of professional workers tend to coincide with the higher rent areas. As might be expected, the spatial patterning of managerial workers is somewhat similar to that of the professional workers.¹⁶

Low proportions of professional and technical workers are found in the northern areas of the city with the lowest proportion in the disintegrating residential area immediately east of the city centre.¹⁷

With regard to income, there is an extremely close pattern between income per head, per family and occupational levels. The lowest income areas tend to be the north eastern areas of the city and corres-

¹⁴ Ibid. ¹⁵ Ibid. p. 44. ¹⁶ Ibid. p. 54. ¹⁷ ibid.

pond with older residential areas having high proportions of manual and semi-skilled workers.¹⁸

Of final interest in this section on the demographics of the Edmonton population are the characteristics of the habitat. It appears that the character of housing is closely linked with the composition of the population. Recent migrants to a larger city often settle in the area characterized by older and deteriorating housing, higher proportions of rental units, low value and rent levels. Edmonton appears to be no exception to this. Edmonton's poor housing areas tend to have low education levels, low income, low status occupations, high proportions of recent foreign-born immigrants, older population and fewer children. The poor housing areas tend to be the older residential districts located in the city centre and the northeast portions of the city.¹⁹

By contrast, the better housing areas tend to be located in the south-western periphery of the city which is expected since these areas also have the highest proportions of professional, technical and managerial workers, higher education and higher rents.²⁰

From this review of Edmonton's demographic characteristics a pattern emerges and can be generalized as the southwest being on the high end of the socio-economic scale with the eastern sector of the city center and the northeast area as being at the low end of the socio-economic scale.

¹⁸ Ibid. p. 64. ¹⁹ Ibid. ²⁰ Ibid.

SUMMARY

Although in this review of secondary data, there is no specific research as to how the Edmonton population rates the various geographic sectors as a place to live, an analytical framework for further analysis can be established.

It is evident that the manifestation of areal sentiments requires the population to have some sources of information about their city and the sentiments this generates will depend on the cognitive elements of the individual. To a degree the cognitive resources of the Edmonton population are determined by the situational variables of (1) the structure of the city around them, and (2) the demographic characteristics of the individuals themselves.

There is no precise explanation of Edmonton's growth pattern but the city does tend to take on a geographic quadrant configuration with the high socio-economic population groups concentrated in the southwest quadrant and the low socio-economic groups in the northeast quadrant.

Having this understanding of Edmonton and the processes that lead to areal sentiment generation, there is still a deficiency of knowledge as to how each geographic sector rates in the eyes of the various population groups, particularly the northwest and southeast sectors that do not take on clear socio-economic identities. Available secondary data allows some speculations and inferences to be drawn, but these are not the sentiments of Edmonton residents. Furthermore, the great majority of demographic data has been drawn from the 1961 census and changes in city structure must certainly have taken place since then.

Thus there is still a need to have the various Edmonton popula-

tion groups rate the geographic sectors of Edmonton as to desirability as a place to live.

To this end, a survey of the Edmonton population was conducted in the fall of 1970. The survey methodology and analysis of the results follow in the succeeding chapters.

CHAPTER III

RESEARCH DESIGN

To provide an adequate field data supplement to what was learned from secondary data on Edmonton areal sentiments, two research specifications appeared necessary. First, the population sampled had to be random to allow the diverse Edmonton population groups equal opportunity of inclusion and the sample had to be of a size adequate for subsequent tabulation and analysis by logical population subgroups. Secondly, the questions asked had to be of sufficient variety to identify what was important to Edmonton residents in a choice of a home and to provide a validity cross-check on answers.

To obtain some direction as to the nature and construction of questions for the random survey, a preliminary small sample survey was conducted on a stratified cross-section of fifty-four households that had recently moved. This initial survey was conducted in the latter part of October, 1970. These were personal open type interviews that encouraged the respondent to express himself in his own words. Analysis of these interviews revealed factors regarding aspirations, moving habits, shopping habits, social situations and cultural aspects about the Edmonton population that could be pursued in a more structured form in the second large sample random survey. The methodology of the initial survey is detailed in Appendix B. The balance of this chapter outlines the second random survey conducted in November, 1970 which generated the majority of data for this study.

SAMPLE DESIGN

The basic source for construction of the random sample was the 1970 City of Edmonton Census Division delineation. This breakdown is ideally suited for construction of random samples in that it divides the total Edmonton area into 278 tracts of near equal population proportions. There is some variation in population among tracts because of city growth and intra-urban mobility, however as shown in table 1, the majority (63%) of the tracts fall in the population category of from 1,000 to 2,000 persons.

Table 1
City of Edmonton 1970 Population
Distribution by Census Tracts

Population Categories	No. of Tracts in Category	% Tracts in Category
0-999	54	19.4
1,000-1,999	175	63.1
2,000-2,999	38	13.6
3,000-3,999	9	3.2
4,000 plus	2	0.7
	278	100.0

Source: City of Edmonton 1970 Census

In selection of the number of tracts and the number of households within each tract to survey, two basic constraints were met. Because the interviews were fairly lengthy, taking from forty-five to sixty minutes,

personal interviewing was necessary and this generated a cost constraint. On the other hand, the Edmonton population of 436,000 requires a relatively large sample to be taken to obtain representation. There appears to be no precise rules as to what size of sample will provide adequate representation and a judgement factor is ultimately involved. However, from discussions with individuals knowledgeable in survey techniques and from observation of the sample sizes researchers have taken in the study of other cities some direction was obtained.¹ Also, one of the guidelines was to obtain an adequate sample size in each of Edmonton's four geographic quadrants. On this basis, it was decided that a random sample of from 300 to 400 respondents could provide adequate representation.

This large sample became the second constraint. By a similar process of cost estimation and deduction, it was decided that each interviewer should survey 5 households per tract to provide an efficient work schedule. This resulted in the necessity to survey eighty-five tracts to assure an adequate number of usable returns.

Actual selection of the tracts took place from a five digit table of random numbers.² In using this table, census tracts were numbered from one to 278. Reference was then made to the random number table and the first three digits noted. If the random number digits gave a number of 278 or less the corresponding census tract was chosen. If the random

¹ Personal communication took place with the Dominion Bureau of Statistics regarding sampling technique on studies of Alberta tourism.

² Robert Ferber, Donald F. Blankertz, and Sidney Hollander, Jr., Marketing Research (New York: The Roland Press Co., 1964), p. 203.

number was larger than 278, it was ignored and the next set of digits was utilized. This process was repeated until eighty-five tracts were selected. These selected tracts were then indicated on a map of Edmonton which the interviewer used for orientation and direction. (See Appendix A).

Within each tract, five households were interviewed, each one in a different block. Since there is difficulty in attempting to relate random numbers to blocks, the interviewers were instructed to select five blocks at their own discretion but well dispersed within each tract. As a control measure, the address of each house was noted and plotted on a map of Edmonton as the survey progressed.

Each household within the block was then selected from a list of two digit random numbers chosen from the same random number table. These random numbers referred to the position of the house in the block starting at a corner house and following the block in a clockwise sequence.

Each interviewer was given nine random numbers other than zero or a first numeral that exceeded one, since there was the possibility that there would be fewer than twenty houses in a block. Since each interviewer had to conduct five interviews in each of three tracts for a total of fifteen interviews, they were allowed to use the same random number more than once but not in the same tract. If an interview could not be completed in a selected house, the interviewer was instructed to move to the adjacent house until the interview was completed in that block.

Because the majority of interviews were conducted during week days, the full proportion of male respondents to the population could not be obtained. However, through special efforts a quota of thirty percent male

respondents was filled. This was necessary because during the initial exploratory survey there was indication that the male member of the family played a significant role in deciding the area of residence for the family. Also a male quota of this size allowed response comparisons to be examined on a male versus female basis for observation of response differences.

With regard to the questionnaire, certain data not directly connected with this study was collected. A personal survey of this size incurs substantial costs so economies of scale had to be considered. As a result shopping data as well as opinions on local issues was collected. This data was then used for purposes other than those of this analysis and resulted in some cost reductions.

In general, the questions pertinent to this analysis centered around the following areas:

1. Overall geographic sector desirability rating. The configuration of northeast, northwest, southeast and southwest were chosen because observation showed that Edmonton residents tend to think about their city in this manner. This question was central to the purpose of this study in that it provided a basis for determining the rank order of geographic sector desirability by population groupings.

2. Rating of respondent's home and its location. The questions in this category provided a check on the satisfaction of respondents with their present area of residence.

3. Opinions as to apartment living. These questions were included because apartments are of increasing importance and they often change the structure of an old housing area.

4. Respondent classification data for purposes of tabulation and analysis.

Final drafting of the questionnaire took place after a pre-test of twelve interviews showed some ambiguity which had to be rectified. Codification for data processing followed through the drafting stages.

A sample of the questionnaire is provided in Appendix A.

SURVEY IMPLEMENTATION

The survey was carried out by thirty-six female interviewers, all of which had previous experience on at least one substantial survey. About one-third of these interviewers were third and fourth year social science students at the University of Alberta, another one-third were supplied by local temporary help agencies and the balance came from the part-time staff of a marketing consulting firm.

Each interviewer was supplied with a survey kit that contained eighteen questionnaires, an instruction sheet, a map of the city, an identification card with the interviewer's name and the name of the firm conducting the survey, an expense and mileage record sheet, a clip board and a pencil.

Also, prior to the survey, the interviewers were assembled in a conference room and a two hour orientation lesson was conducted. In this session the survey instructions were clarified, procedural questions answered and a tape recorded sample interview was heard. At the end of the lesson the interviewers received their survey kits.

As an incentive to complete the total quota of fifteen interviews, a graduated scale of payment for each completed interview was used. Total

field work time varied by interviewer ranging from three to five days.

With reference to tabulation of results, questionnaire returns totalled 362 of which 332 were useable.

Since the work was exploratory in nature and all the important variables could not be conceived in advance, it was decided that the cross-tabulation method of analysis would be advantageous as this would allow rapid visual examination.³ Also, this method allows observation of responses to two or more variables simultaneously which provides greater understanding of the underlying phenomenon than simple comparison of groups to each other.⁴ However, a relatively clear understanding of the problem is essential in the use of cross-tabulations since a table can be made to answer quite different questions, depending on the directions in which the percentages are run.⁵

The actual cross-tabulation was carried out on the time sharing facilities of Computer Sciences Canada Ltd., on a Univac 1108 located in Toronto. Final output was in the form of a matrix that provided response frequency and percentage distribution for each question by each of the following categories:

1. Total all groups
2. Five dwelling types - single detached
 - duplex
 - highrise apartment
 - lowrise apartment
 - townhouse/condominium

³ Paul E. Green and Donald S. Tull, Research for Marketing Decisions (Englewood Cliffs: Prentice-Hall Inc., 1966), p. 314.

⁴ Hiram C. Barksdale and William M. Wehbacher, Marketing Research (New York: The Roland Press Co., 1962), p. 399.

⁵ Ibid., p. 401.

3. Seven income categories - under 4,999
 - 5,000 to 6,999
 - 7,000 to 8,999
 - 9,000 to 10,999
 - 11,000 to 12,999
 - 13,000 to 14,999
 - 15,000 plus
4. Rent or own a dwelling
5. Two age categories - under 30
 - 30 and over
6. Five occupation categories - professional
 - office
 - sales
 - unskilled
 - other
7. By sex - male
 - female
8. By respondent place of residence - northeast
 - northwest
 - southwest
 - city core
 - city periphery

The analysis of this data follows in the next chapter.

CHAPTER IV

ANALYSIS OF DATA

The structure of this chapter includes first an overall view of how the population surveyed responds to housing styles, prices, sizes, locational and environmental characteristics. All these factors play a role in determining the desirability of a place to live. This is followed by a review of the sentiments various population groups hold toward the geographic sectors of Edmonton.

The final section draws relationships and trends relative to the sentiments held toward Edmonton's geographic sectors.

RESPONSES TO THE EDMONTON

RESIDENTIAL ENVIRONMENT

Beginning with satisfaction relative to the present dwelling, it appears that only about one-third of the Edmonton population sees their dwelling as being excellent in most respects. This is shown in table 2.

Table 2

Satisfaction with Present Dwelling

Factor Considered	% Rating as Excellent
Size of house	23.0
Style of house	15.3
Price of house	23.6
District	29.9
Closeness of work for yourself	30.2
Closeness of work for husband	30.4
Closeness to school	42.4
Closeness to shopping centre	40.6
Neighbourliness	22.1
Closeness to friends	13.1
Sample Size = 332	

When asked what type of dwelling would be preferred on the next move, an overwhelming majority of 84.9% indicate they would prefer a single detached house as indicated in table 3.

Table 3
Dwelling Preference on Next Move

Type of Dwelling	% Preferring
Single detached house	84.9
Duplex	2.1
Highrise apartment	5.2
Lowrise apartment	3.2
Town House/Condominium	4.6
	100.0
Sample Size = 332	

Turning to preference in house styles, the most popular type appears to be ranch style at 48.8% although the traditional or "old style" is a close second with a 32.0% preference, as shown in table 4.

Table 4
Private House Style Preference on Next Move

Style	% Preferred
Ranch style	48.8
Traditional (old style)	32.0
Ultra modern	19.2
	100.0
Sample Size = 332	

When asked what type of layout would be preferred in the next house, over one-half (55.6%) of the respondents indicated they still would like the locally popular main floor and basement only type as indicated in table 5.

Table 5
House Layout Preference on Next Move

Type of Layout	% Preference
Standard main floor only	55.6
Split level	29.0
Two-storey	15.4
	100.0
Sample Size = 332	

In terms of number of bedrooms the most desirable house of the next move is the three bedroom type (48.7%) with the next most desirable being houses with four bedrooms (25.9%). This is shown in table 6.

Table 6
Number of Bedrooms Adequate on Next Move

No. of Bedrooms	% Preferring
1	2.8
2	18.3
3	48.7
4	25.9
5	4.3
	100.0
Sample Size = 332	

Regarding the price range that respondents would consider on their next house purchase, over half (53.8%) would be prepared to pay between \$18,000 and \$25,000, as shown in table 7.

Table 7

Price Range that would be Considered on Next Move

Price in Dollars	% Indicating Consideration
10,000-12,000	5.5
12,001-15,000	7.3
15,001-18,000	17.3
18,001-20,000	25.5
20,001-25,000	28.3
over 25,000	16.1
	100.0
Sample Size = 332	

Turning now to the prevailing feelings toward mobility and social aspects of the Edmonton environment, the initial survey, detailed in Appendix B, indicated that attitudes toward apartment living versus a single detached house should be examined, as well as the role of relatives, friends and ethnic groups in a family's choice of a residential district. This was achieved by means of a series of dichotomous questions, the results of which follow.

First relative to apartment living, it appears that whether the apartments are in the suburbs or downtown, the majority of respondents still feel that owning a house in the suburbs is the most desirable alternative. When respondents were asked where they thought people looked for a place to live upon deciding to move, the majority agreed that it would

be a house in the suburbs and did not agree that it would be an apartment, either in the suburbs or downtown. Table 8 shows the results.

Table 8
Responses to Apartment or House
Alternatives as a Place to Live

Question Asked	Answer Chcice in Percent			
	Agree	Disagree	Don't Know	Total
"When people are looking for another place to live, they tend to look for":				
a) An apartment in the suburbs	17.1	67.4	15.5	100.0
b) Their own house in the suburbs	77.4	14.7	7.9	100.0
c) An apartment downtown	35.9	52.1	12.0	100.0
Sample Size = 332				

Considering the three social elements of relatives, ethnic groups and friends, it appears that it is not important for the respondents to be near relatives since 81.9% disagreed that people who move choose an area near relatives. The trend is the same with regard to friends in that 69.5% disagree that people generally move toward an area where friends are living. Finally on the question of ethnic groups, the respondents appear not to mind an ethnic mix since 74.2% disagreed that people of the same ethnic group should live together. Table 9 shows these responses.

Table 9

Significance of Relatives, Friends and Ethnic Groups
in a Choice of a Residential Area

Question Asked	Answer Choice in Percent			
	Agree	Disagree	Don't Know	Total
a) People tend to move near relatives	15.1	81.9	3.0	100.0
b) People tend to move near friends	22.1	69.5	8.4	100.0
c) People of the same ethnic group should live together	16.4	74.2	9.4	100.0
Sample Size = 332				

In summation of the findings in this section, it can be said that overall, Edmonton residents would desire improvements in their present dwelling situation since only about one-third rate their present home as excellent in all respects. On their next move, the majority would prefer a single detached house in either ranch or traditional style having a standard main floor only type layout with three bedrooms. For all this they would be generally willing to pay from \$18,000 to \$25,000. When they choose an area to live, being close to friends or relatives is not of paramount importance and the respondents do not mind an ethnic mix.

GEOGRAPHIC SECTOR RANKING

A central part of the field survey was the question asking the respondents to rate the desirability of Edmonton's four quadrants if they were moving in the future. The question was constructed as a scale

ranging from "most desirable" to "not desirable". (See Appendix A, page 64, question number four). The purpose of this question was to determine first if the respondents could perceive a difference in sector desirability, and if this appeared to be so, how these sectors ranked. The data in table 10 shows the response frequency to the sector rating question for the total sample, all groups combined.

Table 10
Sector Desirability Rating
Response Frequency
Total all Groups

Scale	Geographic Sector				
	N.E.	N.W.	S.E.	S.W.	Total
Not desirable	145	59	90	61	355
Less desirable	72	83	77	53	285
Desirable	52	84	77	96	309
Most desirable	50	90	78	110	328
Total	319	316	322	320	1277

As a method of testing this data as to whether the observed differences in the desirability of each sector were significant or reasonably attributable to chance, the chi-square test was employed.¹

This test was chosen because it is relatively simple to use, was readily accessible in computerized statistical packages and was adequate for testing this sample deviation from assumed theoretical distributions.

¹ John E. Freund and Frank J. Williams, Modern Business Statistics (Englewood Cliffs: Prentice-Hall Inc., 1958), p. 248.

Under this test the observed data is compared with another set of data based on a set of theoretical frequencies. A measure (chi-square) of the actual and theoretical frequencies is computed under the null hypothesis that the theoretical frequencies fit closely to the observed frequencies. If the measure of variation is "high" meaning the fit is not close, the null hypothesis is rejected at some specified risk of being wrong in this decision. If the variation is "low" meaning the fit is close, the null hypothesis is accepted that the observed frequencies are in close agreement with the theoretical frequencies, and that the observed frequencies could very well have been obtained by chance.²

In this study, chi-square was calculated for each set of responses to each level of the desirability scale under the null hypothesis that there was no significant differences between the observed and theoretical frequencies. The results are given in table 11.

Table 11
Results of Chi-square Tests Applied to
Sector Desirability Rating Frequencies

Desirability Rating	Chi-square Value	Alpha Risk
Not desirable	54.318	0.5 ⁻¹⁴
Less desirable	7.084	0.7 ⁻²
Desirable	13.395	0.3 ⁻³
Most desirable	23.024	0.2 ⁻⁵

² Paul E. Green and Donald S. Tull, Research for Marketing Decisions (Englewood Cliffs: Prentice-Hall Inc., 1966), p. 332.

From the above chi-square values the null hypothesis was rejected. Therefore it was concluded that the respondents do indeed observe differences in the desirability of the various geographic sectors of Edmonton.

Considering the second question of how respondents rank the geographic sectors in order of desirability, a method of converting the attitudinal scale used to an ordinal scale was necessary. To this end, the Likert summated scale was employed.³ This scale was chosen because it is readily adaptable to questions that have a negative or positive response condition. In its essential form, this scale assigns numerical weights to each response, and a score is obtained through an algebraic summation of weights associated with each test item checked. In this study the following weights were assigned to the respondent's possible answers:

Most Desirable	Desirable	Less Desirable	Not Desirable
+2	+1	-1	-2

These weights were multiplied by the percentage distribution of answers for each of the four geographic areas. By using the percentage distribution the problem of differing frequency counts for each answer was avoided. This process allowed a total score to be calculated for each geographic sector. These scores were then ranked in order of their summated values. The highest score value was assigned the first rank order and represented the "most desirable" geographic sector choice for the particular population group under study.

Although the summated scale is simple to use and provides a convenient method of obtaining a total response score that can be readily

³ Ibid., p. 204.

ranked, the fact that it assumes only ordinal properties to responses results in some loss of true response value representation. The scale assumes equal intervals between response types and this in reality is not likely to occur. For example the distance between "most desirable" and "desirable" may be different than between "less desirable" and "not desirable" yet the summated scale assumes equal distance. Also the range available within the response scale could have been interpreted differently among respondents, but the scale assumes similarity. However, since the main purpose of the scale in this study was to rank responses, it was considered an acceptable tool.⁴

Under the foregoing assumptions, the rank that each group studied assigns to Edmonton's geographic sectors is listed in table 12.

RELATIONSHIPS AND TRENDS

From the data on table 12 it can be observed that overall, respondents rank the southwest sector as most desirable followed by the northwest, southeast and finally the northeast.

Looking at the results by specific groups, it appears that as family income drops, the most desirable area shifts from the southwest to the northwest. The same trend holds for occupational levels with which incomes are of course directly connected. The findings by age group are fairly consistent, with all age categories ranking the southwest as most desirable and the northeast as least desirable.

These findings tend to support what was learned from secondary

⁴ Ibid.

Table 12
Geographic Sector Ranking by Study Group

Group Studied	No. in Sample	Geographic Sector Rank			
		N.E.	N.W.	S.E.	S.W.
Income: under \$ 4,999	20	2	1	4	3
5,000- 6,999	68	4	1	3	2
7,000- 8,999	80	4	1	3	2
9,000- 10,999	92	4	3	2	1
11,000- 12,999	20	4	2	3	1
13,000 plus	26	4	2	3	1
Age: Under 30	60	4	2	3	1
30 - 49	177	4	3	2	1
Over 50	40	4	2	3	1
Occupation: Professional	90	4	2	3	1
Non-Managerial, office	28	4	3	2	1
Sales, skilled labour	128	4	1	3	2
Unskilled, labourers	62	4	1	2	3
Place of present residence:					
City periphery	136	4	1	3	2
City core	184	4	3	2	1
N.E. Sector	89	1	2	4	3
N.W. Sector	98	3	1	4	2
S.E. Sector	83	4	3	1	2
S.W. Sector	49	4	2	3	1
Total all groups	322	4	2	3	1

data on the demographic structure of Edmonton in that the northeast, which is generally thought of as being on the bottom end of the socio-economic scale, tends to be ranked as least desirable by the respondents. Similarly, the southwest which secondary data reveals as being on the top of the socio-economic scale, tends to be ranked as most desirable.

Also, the secondary data tended to be unclear as to the position the northwest and southeast took on the socio-economic scale, and a similar obscure and shifting position for these two sectors can be observed from the study data. Referring again to table 12, it is evident the ranking of the northwest and southeast moves over most points of the four point ranking scale as the population groups change. However, it can be stated that the northwest generally ranks higher than the southeast.

Given these apparent desirability ratings of Edmonton's four geographic sectors, analysis can now move to some understanding of how these particular sentiments manifest themselves.

One of the clear trends that can be observed from table 12 is that respondents tend to think of their present area of residence as being the most desirable of all available alternatives. For example, those living in the northeast tend to rank this area as the most desirable. This response is consistent for respondents in all four geographic sectors.

Considering this response, two basic possible underlying reasons come to mind. Firstly, the respondents are in fact completely satisfied with their current area of residence and cannot see advantages to living in another area. Secondly, the respondents may be less than satisfied

with the present area but are either unaware that more desirable areas are available or are unwilling to admit that their decision to live in the present geographic sector is a compromise of some degree and really not the area they desire most.

Of these possibilities, the awareness factor can be reasonably discounted since the chi-square statistical test referred to earlier, showed an extremely small probability that the response frequencies obtained could be attributable to chance.

Considering the remaining possibilities, those of either true satisfaction with the present area of residence or the possibility of response distortion, some insights can be obtained by examining the respondent's satisfaction with their present home. This is shown in table 13.

Table 13
Satisfaction with Present Dwellings by Study Group

Factor Considered	% Rating as Excellent				
	Group				
	All Groups	N.E.	N.W.	S.E.	S.W.
Size of house	23.0	24.7	22.0	17.3	26.5
Style of house	15.3	15.7	13.0	13.5	20.8
Price of house	23.6	25.0	25.0	23.0	18.8
District	29.9	27.9	30.0	25.3	41.3
Closeness of work for yourself	30.2	38.6	36.0	26.3	66.6
Closeness of work for husband	30.4	31.8	33.3	32.3	20.9
Closeness to school	42.4	43.8	36.3	43.8	50.0
Closeness to shopping centre	40.6	30.3	39.6	59.7	37.8
Neighbourliness	22.1	20.2	19.6	22.3	29.8
Closeness to friends	13.1	45.9	14.1	31.0	27.5
Sample Size	322	89	98	83	49

From table 13 it is clear that there is less than complete satisfaction with the present dwelling among all groups. In only three cases do over half the respondents rate some aspect of their present dwelling place as excellent. These are the southwest as to "closeness to work" for the female member (66.6%) and "closeness to schools" (50.0%), and the southeast as "closeness to a shopping centre" (59.7%). Also on the question regarding satisfaction with district, if those presently living in a given geographic sector do indeed regard that sector as "most desirable" as the ranking in table 12 indicates, then the percent of respondents rating their "district" as excellent should be similar among all geographic groups. Yet from observation of table 13, this is not the case. It can be seen that only 27.9% of those presently living in the northeast regard their district as excellent, while for those in the northwest the figure is 30%, for those in the southeast 25.3%, and those in the southwest the figure is a high 41.3%.

Clearly, those presently living in the southwest are generally more pleased with their district than are those in any other geographic area.

Allowing that a respondent's present area of residence may not in truth be his most "desired" area, some explanation as to what factors compel an individual to misrepresent his feelings about area desirability need to be examined.

Some explanation to this end may be obtained from the earlier analysis of cognition, perception and sentiments.

Referring back to figure 1, page 14, it can be observed that to develop areal sentiments (f), an individual would have to process the

information he receives from his environment through a cognitive map or network (c), and that certain prejudices and biases (e), may temper the ultimate manifestation of the sentiments (f). Relating this descriptive model to the manifestation of sentiments toward Edmonton's geographic sectors and the apparent misrepresentation of the true situation that results, it would appear that some form of perceptual error is coming into play. Referring to the work of Zalkind & Costello on the limitations of individual perceptual accuracy, there is similarity in the survey findings to what is referred to as "perceptual defense".⁵ Essentially this source of perceptual error is the process of defending oneself from recognizing those events that may disturb the existing perceptual balance. Stated differently, this concept says that when confronted with a fact inconsistent with a stereotype already held by a person, the perceiver is able to distort the data in such a way as to eliminate the inconsistency.

Whyte⁶ in his work also recognized the concept of perceptual defense and related it to Festinger's⁷ principle of "cognitive dissonance". In its essential form, the theory of cognitive dissonance centers around the idea that if a person knows various things that are not psychologically consistent with one another, he will, in a variety of ways, try

⁵ Sheldon S. Zalkind and Timothy W. Costello, "Perception: Implications for Administration," Administrative Science Quarterly, VIII (September, 1962), pp. 218-35.

⁶ William F. Whyte, Organizational Behaviour (Homewood: Richard D. Irwin Inc., 1969), pp. 131.

⁷ Leon Festinger, A Theory of Cognitive Dissonance (Evanston, Ill.: Row, Peterson, 1957).

to make them more consistent. Two items of information that psychologically do not fit together are said to be in a dissonant relation to each other. The items of information may be about behaviour, feelings, opinions, or things in the environment.

In Whyte's interpretation, an individual experiencing cues that do not fit with his prevailing pattern of sentiments finds this dissonance uncomfortable. This dissonance might be resolved in one of two ways. First the individual could rationalize in an effort to find some way of convincing himself that these new cues after all do fit with his pattern of sentiments. Or he can change the pre-existing pattern of sentiments to accommodate it to his new experiences.

Relating these concepts of perceptual error to the survey situation, it can be speculated that some respondents who do indeed feel a geographic area other than their present place of residence is most desirable, will attempt to diminish this source of dissonance by telling others that their present choice is the most desirable one.

To this point no more than speculation of the role of cognitive dissonance in areal sentiment development can take place for as Whyte indicates, "as yet we know little about the conditions under which the individual will rationalize or change his sentiments, but at least we can say that when dissonance occurs the individual is more likely to change than when he faces no dissonance".⁸

In relating this principle of cognitive dissonance to the study findings, it might be explained that the tendency for a respondent to

⁸ Whyte, op. cit., p. 131.

rate his present area of residence as being the most desirable is not all due to his complete satisfaction with the area but partly due also to an attempt at diminishing the dissonance he feels by being committed to one area and perceiving another area as being more desirable.

CHAPTER V

SUMMARY AND CONCLUSIONS

In considering Edmonton as a dynamic urban environment centered in a large geographic area in northwestern Canada, the city can be thought of as an intense population growth centre. This population, although diverse in its ethnic origin and place of birth, is fairly similar in its aspiration for independence and privacy, and this manifests itself in the desire to own private homes. As a result of this quest for private living on the part of the Edmonton population, the city has, in the post World War II period, been characterized by rapid suburban growth. Some of these growth pressures have been transferred to an increase in city centre population density, but the majority of the housing demand is still in the suburban sector.

A continuing population growth is predicted and major new land areas on all peripheral sections of Edmonton will be brought into residential use.

The factors that decide in which direction land expansion takes place are complex and include the physical characteristics of the areas under study, the economics of utility extension to these areas, factors of a social origin, forces of public interest and influences of existing developments.

To the city planner or private or public land development agency that must deal with these complex inter-related factors, it becomes advantageous to develop sources of information and decision-making tools that facilitate managing the task.

One of the fundamental land development decisions in a city such as Edmonton with 360 degrees of expansion opportunity, is the geographic direction in which logical expansion can take place.

There is evidence that a city through time develops a certain character on each of its directional sectors and once established, this character is difficult to change. Therefore it becomes logical to program the development of a given geographic sector toward the population groups that are most likely to accept that particular environment.

Planners and developers in Edmonton have dealt with this problem continually, but it appears that there has been no formalized attempt to take inventory of the prevailing attitudes the Edmonton population holds toward the various geographic sectors of the city and to use this information as a convenient basis of deduction.

In working toward such an inventory of areal sentiments, it becomes clear that psychological, sociological and situational factors are involved. It appears that sentiments about territoriality, the neighbourhood and the home are the net result of cognitive and perceptual processes. These processes detect stimuli, cues or symbols coming from the environment and interpret this information sometimes in a biased or erroneous form. Whether erroneous or not these interpretations lead to the development of sentiments, which may ultimately play a role in the decision of future home purchases.

In this dynamic framework of areal sentiment generation, it is evident that the nature of the ultimate sentiments is influenced by the environment, which is the source of the information perceived, and the nature of the perceiver who will make the perceptual error if one occurs.

Secondary data on urban growth patterns and demographics provides some insight into these factors in the Edmonton context.

Various theories of urban growth have been advanced but none completely explain the growth of Edmonton. However, Edmonton urban growth generally appears to follow a sector pattern, beginning in the city core area and fanning out to the city periphery in a four quadrant configuration. Since Edmonton is reasonably distinct on these lines of growth, it is likely that if the population is able to perceive differences in the desirability of geographic areas as a place to live, they would be on a northeast, northwest, southeast, southwest basis.

A review of the demographic characteristics of the Edmonton population confirms a four quadrant pattern to Edmonton by revealing a socio-economic axis running from its high point in the southwest to its low point in the northeast. Relative to this axis, findings indicate that the high socio-economic level southwest is characterized by high proportions of children, low proportions of foreign-born immigrants, moderate to high fertility levels, high education levels, professional, technical and managerial workers, high income levels, relatively new owner-occupied high median value dwelling units and high contract rents.

By contrast, the low socio-economic sector immediately northeast of the city centre is characterized by an older population, foreign-born, recent immigrants; and low fertility levels because of age and single foreign-born. On the periphery of the northeast, the levels of education, income, dwelling value and contract rents still remain low, but age decreases and fertility rates move to moderate and high levels.

The demographic status of the remaining northwest to southeast axis is not as clear and appears to be partially caused by the inter-

spersion of belts of industrial land use.

Although secondary data provides identification of the components that play a role in the generation of areal sentiments, and allows some speculation as to the general socio-economic rank of Edmonton's geographic sectors, there is little evidence as to how each sector ranks in the minds of the various population groups in Edmonton.

To this end personal interviews were conducted on a random sample of the Edmonton population.

Specific objectives of the survey were to determine what type of residential environment the population preferred, whether or not they could differentiate among the city's four geographic sectors as to desirability as a place to live, and if so, how they rated each sector.

From the analysis of field data it is apparent that the respondents surveyed would generally like some improvements in their present homes and their objectives are fairly high. They still prefer single detached-type dwellings and are willing to pay \$18,000 to \$25,000. In their choice of geographic area, being close to friends and relatives is not of paramount importance and they do not mind an ethnic mix.

When it comes to differentiating among Edmonton's four geographic quadrants there appears significant statistical evidence that there is a difference in area desirability.

When the desirability of these areas is ranked, the pattern appears to follow what is known about the socio-economic structure of Edmonton with the southwest being most desirable followed in order of declining desirability by the northwest, the southeast and the northeast. However, there is evidence that certain perceptual distortions and errors

take place in the form of rating the geographic sector of present residence as most desirable even if there is knowledge that some alternative area might be preferable. This may be so because to admit differently would cause dissonance that is uncomfortable to the respondent. This latter phenomenon has some similarity to the elements of cognitive dissonance theory.

The purpose of this study was exploratory in nature and as such three hypotheses can be evoked for further examination, testing and analysis by other researchers. These hypotheses are as follows:

Hypothesis One: Edmonton residents perceive enough differences in the character of the city's four geographic sectors to be able to rank them in order of desirability as a place of residence.

Hypothesis Two: In total, the Edmonton population sees the southwest as being the most desirable place to live followed in declining order of desirability by the northwest, the southeast and the northeast.

Hypothesis Three: The Edmonton population in order to avoid the discomfort of emotional dissonance will tend to rate their present geographic area of residence as the most desirable.

Relating these hypotheses to practical use as decision-making tools, three broad applications have merit.

Firstly, with regard to marketing, land developers can use these findings as a preliminary tool for locating a target home buying market if the available land is geographically constrained. Alternatively, if the developer is not faced with directional constraints, but has the option of choosing his buyer market first, these findings can provide some insight as to the type of urban environment a particular buyer

market demands. To date, these findings have been utilized with initial measures of success by the City of Edmonton Planning Department for market analysis of the new Millwoods suburb.¹ In this application these findings allowed the target home buyer market to be identified which in turn allowed commercial requirements of the area to be forecast. Ultimately, this facilitated planning for regional, community and neighbourhood shopping facilities.

Secondly, and with special regard to governmental applications, there is a political utility to the evidence that people want confirmation that their decisions with regard to housing are the correct ones. This is an emotional need on the part of the home buyer and it implies motivational and administrative opportunities.

Finally from the currently popular consumer point of view, and specifically the view of the home buyer, there would be value in making special efforts to gather information on the available residential environment to construct a so-called complete cognitive map of what is available so that once the decision to buy is made, cognitive dissonance can be minimized.

On the subject of future research, at least two broad avenues can be suggested.

Firstly, because this thesis is exploratory, the findings in this paper require a good deal of verification and replication. Even the data

¹ This suburb alternatively known as the Southeast Development Area is a joint development project sponsored by the City of Edmonton and the Alberta Housing Corporation. It comprises nine square miles in southeast Edmonton and is expected to house 88,000 people by 1981 with initial occupancy in 1972.

collected in this survey can be taken to numerous new stages of analysis. Also the methodology could be refined. For example, several of the questions required the respondent to give his reactions under the assumption that he was prepared to move in the future and that there would be homes available in all geographic sectors. In actual fact, homes are not presently available in all directions. Also, there is the question of whose opinion is important in the purchase of a new home. How much weight should be assigned to the husband and how much to the wife is not covered in this analysis. There is also the question of who constitutes the home buying market. The weight that should be placed on newcomers to Edmonton, to the present apartment dwellers and to present home owners should be considered in the evaluation of prevailing sentiments.

Secondly, there is needed research to parallel this analysis. At this point it is not known how important areal sentiments are in home buying. For example, the role that sentiments play as compared to price, nearness to work, or facilities such as shopping centres, schools and similar services is not known at the time of this analysis. Also the use of Hoyt's sector theory of urban land use patterns may be too limiting in its explanation of Edmonton's growth. For example, there are around Edmonton the beginnings of satellite towns and their existence is not adequately explained by sector theory. Furthermore, there is a movement in Edmonton toward urban renewal and this type of redevelopment will undoubtedly affect areal sentiments. As a final area of research it is suggested that ultimately some of the most useful work on areal sentiments would be to discover what factors are important in

bringing about cognitive change relative to residential districts or specifically what it takes to break the prevailing sentiments relating to a city's geographic sectors.

BIBLIOGRAPHY

- Barksdale, Hiram C., and William M. Weilbacher. Marketing Research. New York: The Ronald Press Co., 1962.
- Berelson, B., and G. A. Steiner. Human Behaviour. Shorter edition, Harcourt, Brace and World Inc., 1967.
- Bogue, D. J. (ed.). Needed Urban and Metropolitan Research. Scripps Foundation; Oxford Ohio: Miami University, 1953.
- City of Edmonton Planning Department, General Plan. City of Edmonton, 1967.
- City of Edmonton Planning Department, Amendments to the City of Edmonton General Plan. City Planning Department, June, 1970.
- Dichter, Ernest. Handbook of Consumer Motivations. New York: McGraw-Hill Book Co., 1964.
- Ferber, Robert, Donald F. Blankertz and Sidney Hollander, Jr. Marketing Research. New York: The Ronald Press Co., 1964.
- Festinger, Leon. A Theory of Cognitive Dissonance. Evanston, Ill.: Row, Peterson, 1957.
- Freund, John E., and Frank J. Williams. Modern Business Statistics. Englewood Cliffs: Prentice-Hall Inc., 1958.
- Green, Paul E., and Donald S. Tull. Research for Marketing Decisions. Englewood Cliffs: Prentice-Hall Inc., 1966.
- Harris, C. D., and E. L. Ullman. "The Nature of Cities". The Annals, CCXXXII (November, 1945).
- Hoyt, Homer. The Structure and Growth of Residential Neighbourhoods in American Cities. Federal Housing Administration, 1939.
- Kelly, H. H. "The Warm-Cold Variable In First Impressions of Persons". Journal of Personality, XVIII (1950).
- Kupfer, George. Edmonton Study: Community Opportunity Assessment. Edmonton: Human Resources Research and Development Executive Council, Government of Alberta, 1967.
- McKeever, J. R. (ed.). The Community Builders Handbook. 5th ed. Washington: Urban Land Institute, 1968.
- Mowser, Ernest R. "Sequential and Class Variables of the Family in the Suburban Area". Social Forces, XXXX (December, 1961).
- Park, R. E. The City. University of Chicago Press, 1925.

Stanger, Ross. The Psychology of Industrial Conflict. New York:
John Wiley & Sons Inc., 1956.

Whyte, W. F. Organization Behaviour: Theory and Application. Homewood:
Richard D. Irwin Inc., 1969.

Zalkind, Sheldon S., and Timothy W. Costello. "Perception: Implications
for Administration," Administrative Science Quarterly, VIII (September,
1962).

APPENDIX A

INTERVIEWER INSTRUCTIONS

The Tract Numbers from which you are to select your respondents are:

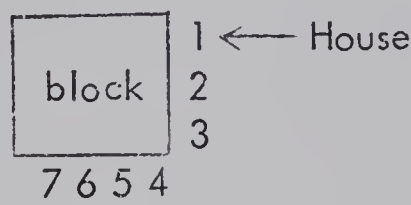
First _____ Second _____ Third _____

From the enclosed map you can determine the street and avenue boundaries on each tract.

You have to complete 5 interviews in each tract.

Each interview has to be done in a different block.

To select the house in each block, refer to the numbers listed below. Consider a corner house as being house #1. The random numbers listed below tell you which succeeding house to interview i.e.



These numbers can be used more than once but try to use each one at least once in your 15 interviews.

Random Nos. _____

NOTE WELL: 1/3 of your respondents must be male.

In case of questions, call: Mr. Alex Lewoniuk

Bus: 422-1187
Home 432-8306

SECOND SURVEY

INTRODUCTION

We are talking to several hundred people in Edmonton this week to get their opinions on housing and shopping in Edmonton. We are selecting the households by random and I must interview 3 households on this street. You are the _____ house on the street and I am asked to interview you. Could you please allow me a few minutes of your time?

1. If you were to move out of your present home which of the following would you consider:

(a) Single detached house	()	<u>1</u>	1
(b) Duplex	()	<u>2</u>	2
(c) Highrise apartment	()	<u>3</u>	3
(d) Lowrise apartment	()	<u>4</u>	4
(e) Town House/Condominium	()	<u>5</u>	5

2. Thinking only of private houses,

(a) Which style would you most prefer	<u>2</u>	1
- Ranch style	()	1
- Traditional (old style)	()	2
- Ultra modern	()	3
(b) Which layout would you most prefer	<u>3</u>	1
- standard main floor only	()	1
- split level	()	2
- two-storey	()	3
(c) And which of the following price ranges would you consider:	<u>4</u>	1
\$ 10,000 - 12,000	()	1
12,001 - 15,000	()	2
15,001 - 18,000	()	3
18,001 - 20,000	()	4
20,001 - 25,000	()	5
over 25,000	()	6

3. How many bedrooms would be adequate for your family. 5

4. Edmonton is expected to grow in all four directions and there will be more residential areas than at present. How would you rate the desirability of these districts if you were moving in the future (check).

	Most Desirable <u>4</u>	Desireable <u>3</u>	Desireable <u>2</u>	Not Desireable <u>1</u>	
NORTH EAST	_____	_____	_____	_____	<u>6</u>
NORTH WEST	_____	_____	_____	_____	<u>7</u>
SOUTH EAST	_____	_____	_____	_____	<u>8</u>
SOUTH WEST	_____	_____	_____	_____	<u>9</u>

5. Now I would like to ask some questions about the purchases you make for your family.

(a) Where do you usually buy daily convenience foods such as bread, butter and milk: 10

- Nearest Safeway () 1
- Nearest L-Mart () 2
- Nearest IGA () 3
- Nearest Warehouse Discount () 4
- Nearest corner store () 5

(b) How far away is it in: Blocks 11
Time 12

(c) If it is a shopping centre - check 13

- Bonnie Doone () 1
- Capilano () 2
- Meadowlark () 3
- Northgate () 4
- Park Plaza () 5
- Westmount () 6
- Southgate () 7
- Centennial Mall () 8

6. (a) Where do you usually shop for major grocery orders?

- Nearest Safeway () 14
- Nearest L-Mart () 2
- Nearest IGA () 3
- Nearest corner store () 4

(b) How far away is it in: Blocks 15
Time 16

(c) If it is a shopping centre, check: 17

- Bonnie Doone () 1
- Capilano () 2
- Meadowlark () 3
- Northgate () 4
- Park Plaza () 5
- Westmount () 6
- Southgate () 7
- Centennial Mall () 8

7. Name 3 goods you buy in a store (like dress clothing) for which you shop around to make price and quality comparisons, giving the store name and approximate address:

	ITEM	STORE NAME	APPROX. ADDRESS	
i)				18
ii)				19
iii)				20

13. Who is the major income earner in your household

- a) _____ 28
- b) and what is his/her occupation _____ 29
- c) describe the job he/she is doing _____ 30
- d) and where is his/her place of work _____ 31
- e) how long does it take him/her to get to work either by walking, by car or by bus

	<u>32</u> Car	<u>33</u> Bus	<u>34</u> Walking	
less than 5 min	_____	_____	_____	<u>1</u>
6 - 10 minutes	_____	_____	_____	<u>2</u>
11 - 15 minutes	_____	_____	_____	<u>3</u>
16 - 20 minutes	_____	_____	_____	<u>4</u>
21 - 25 minutes	_____	_____	_____	<u>5</u>
26 - 30 minutes	_____	_____	_____	<u>6</u>
31 - 45 minutes	_____	_____	_____	<u>7</u>
over 45 minutes	_____	_____	_____	<u>8</u>

14. Please read the following. Which of these categories best correspond to your gross family income per year:

		<u>35</u>	<u>1</u>
under 4,999	_____		<u>2</u>
5,000 to 6,999	_____		<u>3</u>
7,000 to 8,999	_____		<u>4</u>
9,000 and over	_____		
11,000 to 12,999	_____		
13,000 to 14,999	_____		
15,000 +	_____		

15. How long does it take:

	<u>36</u> Walk	<u>37</u> Ride	
a) for your children to walk/ride to school - less than 5 minutes	_____	_____	<u>1</u>
6 - 10 minutes	_____	_____	<u>2</u>
11 - 15 minutes	_____	_____	<u>3</u>
16 - 20 minutes	_____	_____	<u>4</u>
21 min. or more	_____	_____	<u>5</u>
b) to go to your local supermarket -	<u>38</u> By Car	<u>39</u> Walking	
less than 5 minutes	_____	_____	<u>1</u>
6 - 10 minutes	_____	_____	<u>2</u>
11 - 15 minutes	_____	_____	<u>3</u>
16 - 20 minutes	_____	_____	<u>4</u>
21 min. and over	_____	_____	<u>5</u>

We are now repeating some things which we would like you to comment on.
Please tell me if you agree or disagree.

16. When people are looking for another place to live:

- | | | | |
|---|----------------|-----------|---|
| (a) They tend to move toward an area where friends are living | Agree () | <u>40</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (b) They tend to move to an area where relatives are living | Agree () | <u>41</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (c) They tend to look for an <u>apartment</u> in the suburbs | Agree () | <u>42</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (d) They tend to look for their own <u>house</u> in the suburbs | Agree () | <u>43</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (e) They tend to look for an apartment downtown | Agree () | <u>44</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (f) People of the same ethnic group should live together | Agree () | <u>45</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |
| (g) The Industrial Airport should be expanded and not left as it is | Agree () | <u>46</u> | 1 |
| | Disagree () | | 2 |
| | Don't know () | | 3 |

Why _____

- | | | | |
|--|-------|-----------|---|
| 17. Who provides the telephone service for your home | | <u>47</u> | 1 |
| Alberta Government Telephones | _____ | | 2 |
| City of Edmonton | _____ | | 3 |
| Don't know | _____ | | |

18. Who provides the electricity for your home

48

Calgary Power

1

City of Edmonton

2

Don't know

3

19. Which telephone company would you prefer to service your home

49

Alberta Government Telephones

1

Edmonton City Telephones

2

Why

20. Which power company would you prefer to service your home

50

Calgary Power

1

Edmonton City Power

2

Why

21. Statistics:

51

(a) Kind of dwelling:

single detached

()

1

duplex

()

2

highrise apartment

()

3

lowrise apartment

()

4

town house/condominium

()

5

(b) Rented

()

52

1

Owned

()

2

(c) Respondent:

Male

()

53

1

Female

()

2

Approximate age

54

(d) Family head: Education

55

Age

56

Ethnic origin

57

(e) Total family size living at home

58

(f) House address

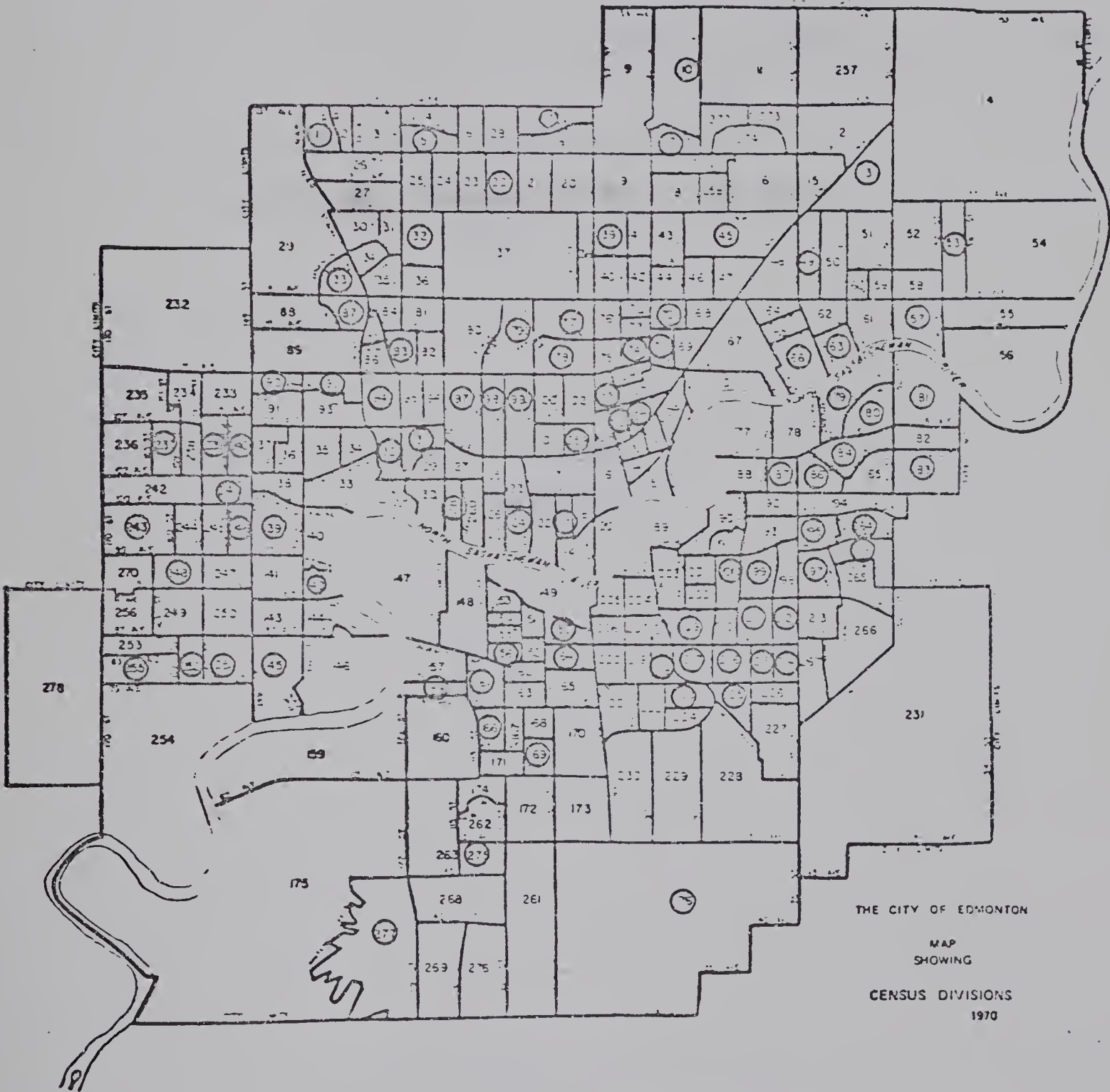
(g) Tract number

59

Surveyor name

FIGURE 4

MAP OF EDMONTON SHOWING
CENSUS TRACTS SURVEYED



LEGEND:

○ Denotes Area Surveyed

APPENDIX B

INITIAL SURVEY METHODOLOGY

This first survey had the objective of examining the qualitative relationship of life in Edmonton, the necessities of community facilities and what attracts people to an area. This survey examined the community aspects, recreation, shopping behaviour, how people live before they move and how they live after they move to a different area.

SAMPLE DESIGN

The data desired was from respondents recently moved, so that conditions surrounding the move would be still clear in memory and so that the shopping habits could be compared in the current Edmonton shopping environment.

The time line defining recent movers was deduced after considering the frequency of moves in Edmonton within the last six to fourteen months. This was accomplished through examination of telephone transfer data, private communication with real estate agents and review of annual population growth rates within census tract areas of the city. From this analysis it appeared that a time period of twelve to fourteen months included enough resident moves to eliminate any seasonal or special circumstance variations.

The location of recent movers was determined after considering the possible moves available to an Edmonton resident.

These were as listed in table 14.

Table 14
Initial Survey Sample Derivation

MOVED FROM	MOVED TO			
	Old Area		New Area	
	House	Apt.	House	Apt.
New area house	x	x	(x)	(x)
New area apartment	x	x	(x)	(x)
Old area house	(x)	(x)	(x)	(x)
Old area apartment	(x)	(x)	(x)	(x)
Outside Edmonton	(x)	(x)	(x)	(x)

Examination of the total possible moves allowed the most relevant possibilities to be recognized. The circled cells in table 14 were deduced to be the most likely moves and these possibilities could be covered by surveying both single dwelling owners and apartment renters in both the old and new residential areas in Edmonton.

An old or new area of Edmonton was deduced from growth statistics and the examination of building permits. This data showed that a new area could be defined as one that had experienced above average population growth in the last two years and where new construction was taking place. The old area could conversely be defined as one that remained static in population growth for the last nine years.

Under these definitions, Edmonton's census tracts were categorized into two groups of old and new areas plus a special third group of three census tracts to include highrise apartments which proved to be

special cases, difficult to find in a randomly chosen area.

In addition to the Edmonton respondents, it was decided that significant satellite towns should be examined as they were now developing areas that were attracting residents of Edmonton. On a random choice basis, Leduc and Sherwood Park were selected.

In these selected areas, quota interviewing took place as to:

1. Dwelling type - single detached
 - duplex
 - lowrise apartment
 - highrise apartment
2. Rented or Owned
3. Head of household age - under 30
 - over 30

A total of 54 interviews were conducted. The quota structure is displayed in table 15.

QUESTIONNAIRE DESIGN

The questionnaire was designed to allow free response to be obtained from the subject. For this type of response, a minimum amount of structure is required to allow the respondent to let the information flow in his own words. Thus the questionnaire was in the form of an interview guide that allowed the surveyor to channel the direction of the interview.

The general sections of the questionnaire were as follows:

- Part I - Classification data
 - Questions on moving
- Part II - Aspirations
- Part III - Social situation
- Part IV - Shopping

Part V - Cultural

Part VI - Statistical and verification data

CONDUCTING THE INTERVIEWS

The survey was carried out during the fall of 1970 with the assistance of eight trained surveyors. The surveyors were each supplied with survey kits and were oriented to this survey through the aid of visual materials and tape recorded sample interviews.

Table 15
Initial Survey Sample Structure

	Old Housing Tract No.*				New Housing Tract No.*				Satellite Area			Total
	25	9	41	18/23	Σ				S. Park	Leduc	Σ	
	25	9	41	18/23	Σ				Σ			
Dwelling - Single Detached	3		6		9	2	5	5	12	3	6	27
- Duplex/Condominium		1			1	1	1	2	4			5
- Walkup/Rcw House	3	2	1		6	1	3	4	8			14
- Highrise				6	6	2			2			8
Age - 30 Years and younger	5	2	4	4	15	1	2	6	14	2	3	32
- Over 30	1	1	3	2	7	1	2	3	12	1	3	22
Income - To 4,999	3	1			1	5	1	1	1	3	1	8
- 5,000 - 6,999	1	1	1	1	4		1	3	6	1	1	11
- 7,000 - 8,999			3		3		1	3	6	1	1	10
- 9,000 & Over	2	1	3	4	10	1	2	2	11	2	4	25
Rented	5	2	2	6	15	2	2	5	16			31
Owned	1	1	5		7		2	4	10	3	6	23
No. of Rooms - 1 Bedroom	3	1		4	8		1	2	3			11
- 2 Bedroom	1	1	1	2	5	2		5	7			14
- 3 Bedroom	1	1	5		7		3	5	11	3	5	23
- 4 Bedroom & Over	1		1		2		1	2	3	1	1	6

* Refer to map in figure 5 for area location.

INITIAL SURVEY

PART I: Moving

1) NOTE DOWN:

- a) present address
- b) how long did you live in this place
- c) where did you live before
- d) how long did you stay in the previous place
- e) which kind of dwelling was it (see classification in instructions)
- f) was it rented or owned
- g) how many rooms
- h) is the present place rented or owned
- i) how many rooms

Can you describe to me how it came up that you moved fromto.....:

- 2) When did the discussion first come up.
- 3) Who started the discussion.
- 4) What was the discussion about.
- 5) Who participated in the discussion....and with whom else did you discuss it.
- 6) What was the next step you took.
- 7) From where did you collect information.
(PROBE: What else did you do.)
- 8) Assuming you would not have found anything through/by....., which next step would you have taken.
- 9) You probably had several offers, which kind of choices did you discuss, which came nearest to your interest.
- 10) Did you look especially for the area.
- 11) Which other area would you not have minded moving to.
- 12) Which kind of house/apartment did you have originally in mind.
- 13) What do you remember about the last discussion you had before you made the decision.
- 14) Have you thought about how long you intend to stay in this place.
(In case the answer is NOT "forever")
- 14a. And where do you think you would move next.
- 14b. For choosing your next place, what do you think might be your main motive.
- 14c. Have you ever considered living in the new developments in the Northeast or Southeast of Edmonton. How did it come to your mind.
(In case not considered): Why did you never consider it.

PART II: Aspiration

- 15) Do you have children (if NO, go to 19)
If YES, are some of them going to school, pre-school or kindergarten.
(if none - go to 18)
- 16) Which inconvenience did you find in your previous place with regard to schooling (specify each time if school, pre-school, etc.)
- 17) Which inconvenience do you find in your present place.
- 18) What is your opinion about the playground situation in your present place in comparison to the previous one.
- 19) What is your intention with regard to the future of your children.
- 20) You, yourself, did you get some training or education.
- 21) Do you feel that your education/training is sufficient for your future life.
- 22) Or would you have liked a different training or education.
- 23) What would you have liked to do.

You might be able to speak for your husband:

- 24) a) People generally want to go ahead, do something more, which kind of position would your husband like to get.
b) And which kind of work.
c) What inhibits him to do so.

A few questions on small children:

- 25) When they are just born, are you in favour of giving a bottle or mother's milk if you can choose, why so.
- 26) Besides milk, which other kind of food would you give them within the first year.
- 27) Some women prefer to schedule the time of feeding. What did you do (would you do) for your child.
- 28) There are a number of preschools and kindergartens around. What are the advantages of bringing your child to the preschool or kindergarten.
- 29) Do you mind using the school bus for any age of child, or what is there against it.
- 30) With regard to bringing up children, do you agree more with the upbringing where you are living now or more with the upbringing of the previous area. In which way did it differ.

You have told me already a lot about differences between your present and your previous living places. Maybe you could tell me something more -

- 31) For instance when you think of the placement of the house site, the street and the playgrounds or parks.
- 32) And which difference did you find in spending your leisure time
 - a) during week days
 - b) on week-ends
- 33) And in which way do you think your neighbourhood is different.
- 34) And thinking of the friends and contacts you had before you moved to the present place.
 - (a) Without telling me their names, who was dropping in quite regularly to your previous place.
 - (b) From where did you know them.
 - (c) Do these friends still visit you.
- 35) And whom did you invite for drinks and food.
 - (a) From where did you know those who were not living near your place.
- 36) (a) Thinking of your present place, who drops in from time to time.
 - (b) And from where do you know them.
- 37) (a) And whom do you invite for drinks and food.
 - (b) And from where do you know them.
 - (c) Are some of them the same people from your previous place.
- 38) Whom did you know in this area before you moved in.
- 39) When one moves to another place, some people cannot visit you any more so frequently, whose visit do you miss.

Maybe you can speak for your husband:

- 40) (a) Are there friends who cannot visit him here any more so frequently.
 - (b) And who are they.
- 41) (a) Thinking of yourself, where do you meet your friends outside your own place.
 - (b) And which common interest do you have.
- 42) (a) And speaking for your husband, where does he meet his friends.
 - (b) And which common interest do they have.

One more question on invitations:

- 43) By whom do you get most frequently visited by these days.
- 44) And by whom did you get most frequently visited in your previous place.
- 45) When you think of the most formal invitations you received.
 - a) by whom have you been invited in your present place.
 - b) and by whom have you been invited in your previous place.

PART IV: Shopping

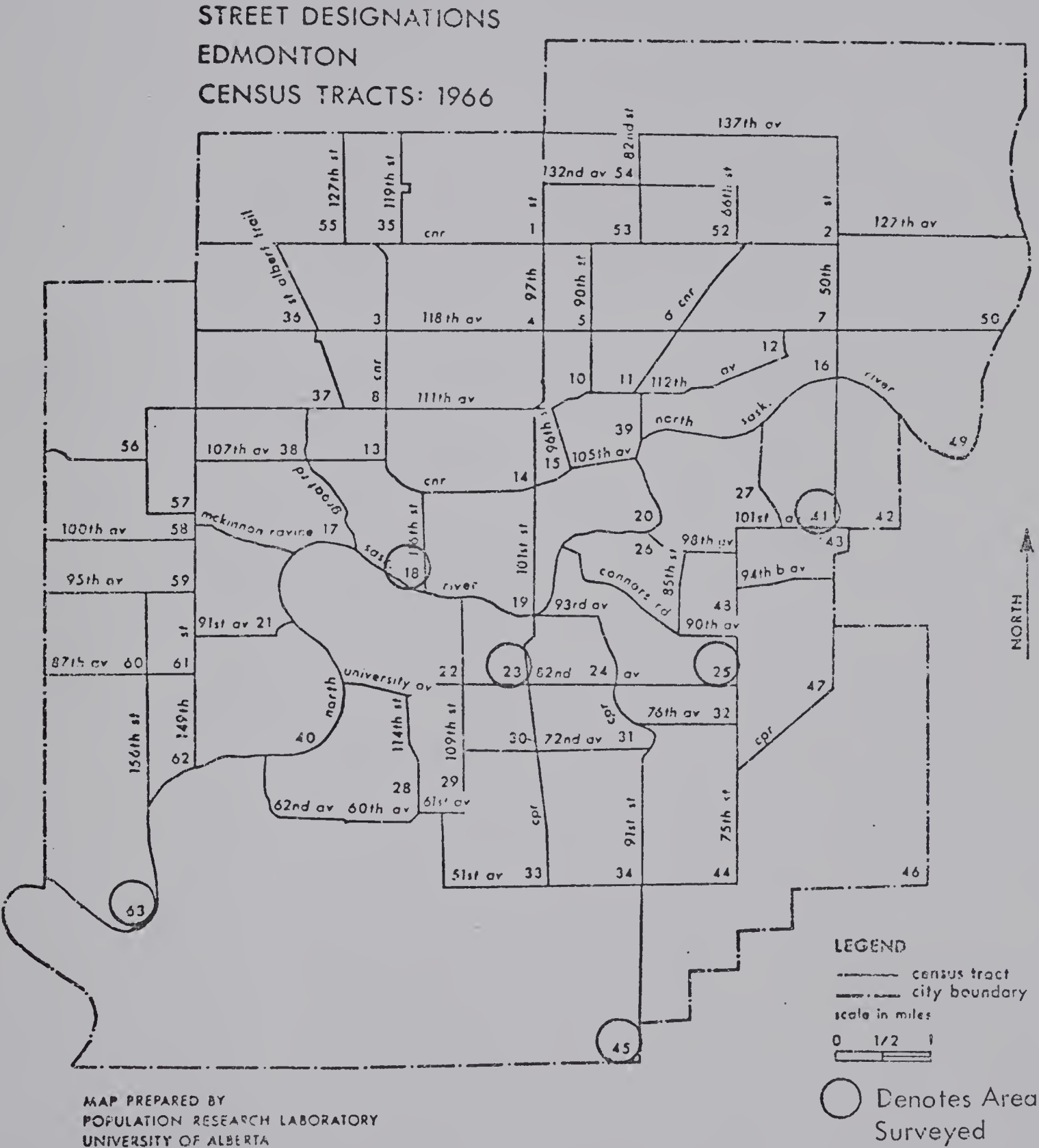
- 46) When you think of your previous living place, which kind of advantages did it have and where did you buy:
- a) food
 - b) clothing for your children
 - " " husband
 - " " self
 - c) durables, like pots and pans
- 47) And where are you going now to buy
- a) food
 - b) clothing
 - c) durables
- 48) What are the inconveniences in shopping you have to cope with in your present place.
- 49) Which are the advantages in buying
- a) in a corner store
 - b) in a shopping centre
- 50) One can get a lot of information about goods from the Edmonton Journal, from leaflets brought to your home, from TV and other sources.
- a) which information do you rely most upon
 - b) thinking of your previous place, which kind of valueable information did you get there which you cannot get in your present place.
- 51) When you moved to this place, which kind of shopping habits did you have to change.
- a) Are you still going to the same big stores or another one.
 - b) Which ones
 - c) Where are they situated
 - d) For which store do you have a credit card.
- 52) What are the advantages of buying in the big stores you were mentioning in comparison to other big stores.
- 53) Do you have a car available for shopping and whereto. Can you drive yourself. (In case no car available, which means of transport).
- 54) There are many shopping centres in Edmonton such as Northgate and Southgate. Please name all the centres -
- a) that you have visited
 - b) which ONE of these in your opinion has the best combination of shops. Who do you think so.
 - c) which one do you shop at most frequently.

PART V: Others

- 55) There are many different kinds of ethnic groups in Edmonton and they have different habits, they eat differently and live differently. Of people who recently immigrated, which nationality would you prefer to have in your neighbourhood if you have a choice.
- 56) Some people from certain countries might bring up their children in a certain way which you would not appreciate. If it happens in your neighbourhood would it not eventually bring complications?
- a) what are you going to do in this case
 - b) would it eventually lead you to leaving your place
- 57) People have different incomes, do you think it would eventually lead you to move out of a place when it comes to certain income levels in the neighborhood and what would bother you.
(In case she would not move): There are people who change their living area because of it - what do you think would bother them.

FIGURE 5

MAP OF EDMONTON SHOWING
CENSUS TRACTS SURVEYED



B29975